

**SCHEDULE OF QUANTITIES**

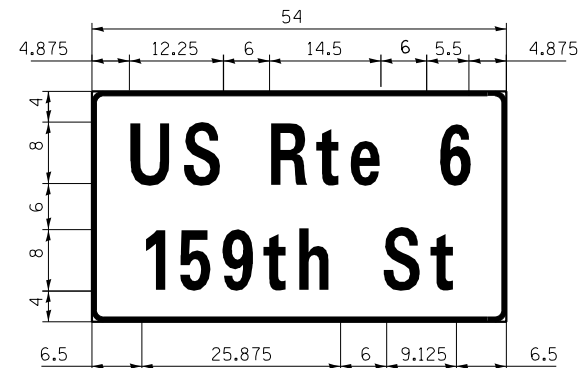
ITEM DESCRIPTION	UNIT	TOTAL QTY.
SIGN PANEL - TYPE 1	SQ FT	30
SIGN PANEL - TYPE 2	SQ FT	47.5
REMOVE SIGN PANEL - TYPE 1	SQ FT	25.5
UNDERGROUND CONDUIT, GALVANIZED STEEL 2" DIA.	FOOT	1231
UNDERGROUND CONDUIT, GALVANIZED STEEL 3" DIA.	FOOT	159
UNDERGROUND CONDUIT, GALVANIZED STEEL 4" DIA.	FOOT	510
HANDHOLE	EACH	8
HEAVY-DUTY HANDHOLE	EACH	4
DOUBLE HANDHOLE	EACH	2
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 2C	FOOT	1472
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 3C	FOOT	2194
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 5C	FOOT	2349
ELECTRIC CABLE IN CONDUIT, SIGNAL NO. 14 7C	FOOT	2039
ELECTRIC CABLE IN CONDUIT, LEAD-IN, NO. 14 1 PR	FOOT	4085
ELECTRIC CABLE IN CONDUIT, SERVICE NO. 6 2C	FOOT	68
ELECTRIC CABLE IN CONDUIT, EQUIP. GROUNDING CONDUCTOR, NO. 6 1C	FOOT	722
TRAFFIC SIGNAL POST, 10 FOOT	EACH	2
TRAFFIC SIGNAL POST, 16 FOOT	EACH	2
STEEL MAST ARM ASSEMBLY AND POLE, 20 FOOT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 22 FOOT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 38 FOOT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 48 FOOT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 52 FOOT	EACH	1
STEEL MAST ARM ASSEMBLY AND POLE, 54 FOOT	EACH	1
CONCRETE FOUNDATION, TYPE A	FOOT	20
CONCRETE FOUNDATION, TYPE C	FOOT	4
CONCRETE FOUNDATION, TYPE E 30-INCH DIAMETER	FOOT	38.5
CONCRETE FOUNDATION, TYPE E 36-INCH DIAMETER	FOOT	51
SIGNAL HEAD, LED, 1-FACE, 3 SECTION, MAST ARM MOUNTED	EACH	8
SIGNAL HEAD, LED, 1-FACE, 3 SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5-SECTION, BRACKET MOUNTED	EACH	2
SIGNAL HEAD, LED, 1-FACE, 5 SECTION, MAST ARM MOUNTED	EACH	8
PED. SIGNAL HEAD, LED, 1-FACE, BRACKET MOUNTED W/COUNTDOWN TIMER	EACH	8
TRAFFIC SIGNAL BACKPLATE, LOUVERED, FORMED PLASTIC	EACH	16
INDUCTIVE LOOP DETECTOR	EACH	13
DETECTOR LOOP, TYPE I	FOOT	665
LIGHT DETECTOR	EACH	2
LIGHT DETECTOR AMPLIFIER	EACH	1
PEDESTRIAN PUSH BUTTON	EACH	8
TEMPORARY TRAFFIC SIGNAL INSTALLATION	EACH	1
REMOVE EXISTING TRAFFIC SIGNAL EQUIPMENT	EACH	1
REMOVE EXISTING HANDHOLE	EACH	16
REMOVE EXISTING DOUBLE HANDHOLE	EACH	1
REMOVE EXISTING CONCRETE FOUNDATION	EACH	15
EMERGENCY VEHICLE PRIORITY SYSTEM LINE SENSOR CABLE, NO. 20 3/C	FOOT	694
FULL-ACTUATED CONTROLLER AND TYPE SUPER R CABINET (SPECIAL)	EACH	1
SERVICE INSTALLATION, GROUND MOUNTED, METERED	EACH	1
UNINTERRUPTIBLE POWER SUPPLY, SPECIAL	EACH	1
TEMPORARY TRAFFIC SIGNAL TIMING	EACH	5

\* 100% COST TO THE CITY OF OAK FOREST

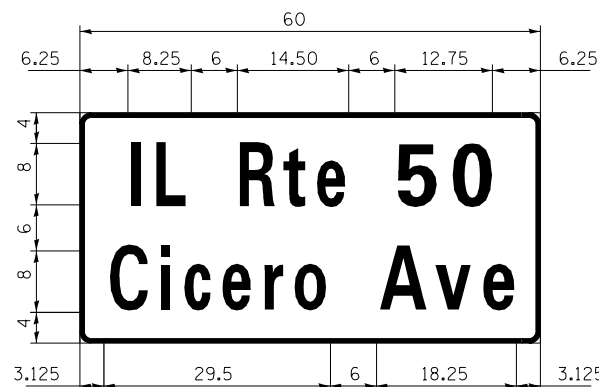
\*\* TEMPORARY TRAFFIC SIGNAL TIMING HAS BEEN INCLUDED TO OPTIMIZE EXISTING TRAFFIC SIGNALS AT 159TH STREET/HARLEM AVE., HARLEM AVE./167TH STREET, 167TH STREET/CICERO AVE. AND CICERO AVE./159TH STREET. THESE INTERSECTIONS SHALL BE OPTIMIZED PRIOR TO THE ROUTE 6 DETOUR IN STAGE 1 TO ACCOUNT FOR THE ADDITIONAL DETOURED TRAFFIC MOVEMENTS.

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**SIGN PANEL - TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	11.25	2	ZZ	2



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D	12.50	2	ZZ	2

**TS 170  
ECON 135**

FILE NAME = Q:\Engineering\LiveProjects\13003 IDOT DUR\13003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-sh-t-ts-sign.dgn

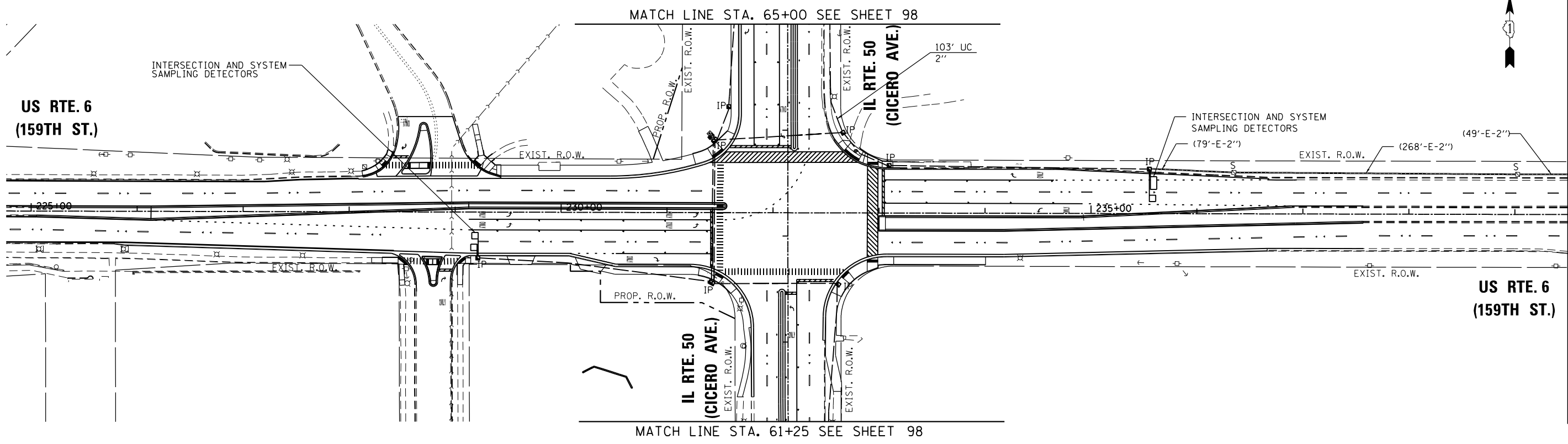


USER NAME = johnn	DESIGNED - DH	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 100.0000' / 1in.	CHECKED - TGM	REVISED -
PLOT DATE = 7/21/2017	DATE - 7/21/2017	REVISED -

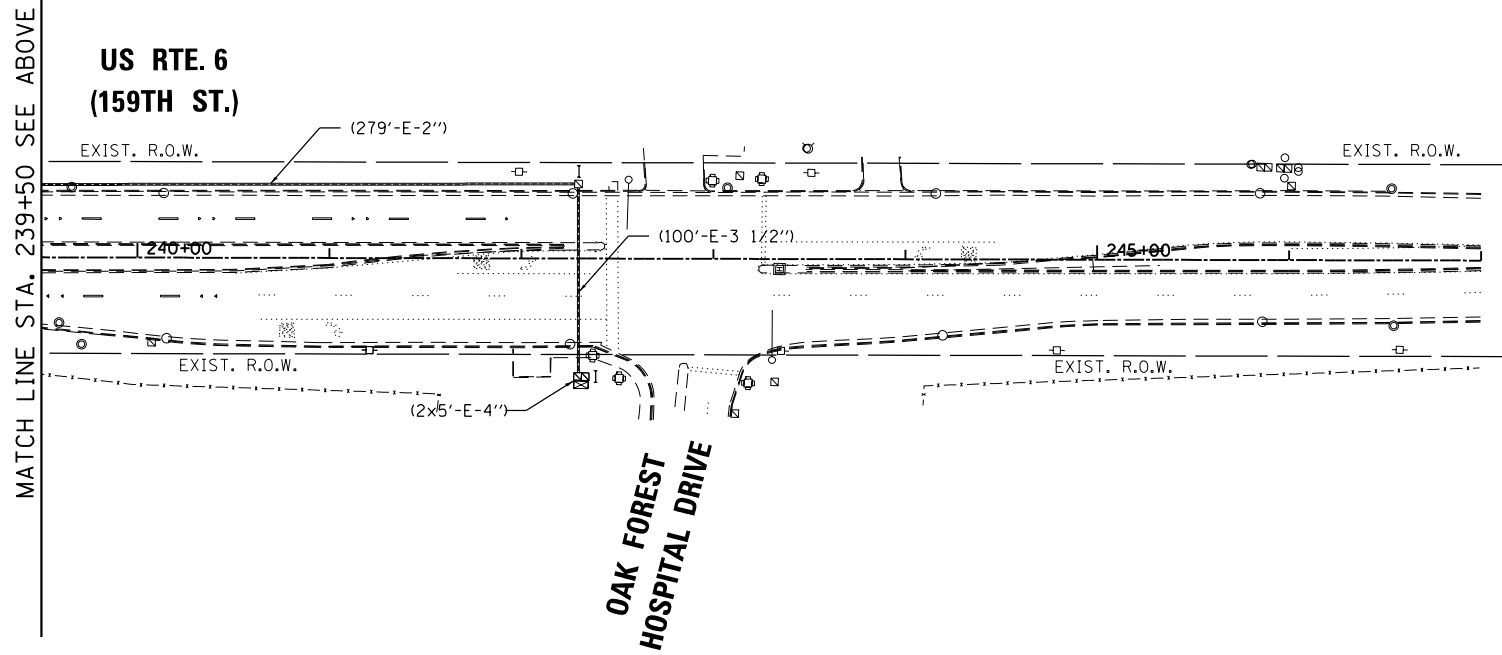
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MAST ARM MOUNTED STREET NAME SIGNS AND SCHEDULE OF QUANTITIES</b>			
<b>US ROUTE 6 (159TH ST.) AND IL ROUTE 50 (CICERO AVE.)</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	101
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



MATCH LINE STA. 239+50 SEE BELOW



NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT  
FOR THIS PROJECT SHALL BE "ECONOLITE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.

**ECON 135**

FILE NAME = Q:\Engineering\LiveProjects\13003 IDOT DUR\13003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-plt-ts-US6 Inter-S01.dgn



USER NAME = johnn	DESIGNED - DH	REVISED -
DRAWN - DH	REVISED -	
PLOT SCALE = 100.000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 7/21/2017	DATE - 7/21/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

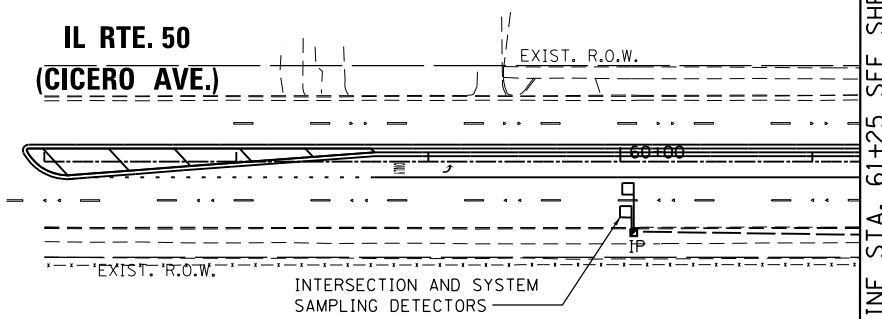
**TRAFFIC SIGNAL INTERCONNECT PLAN  
US RTE. 6 (159TH ST.)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	102
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

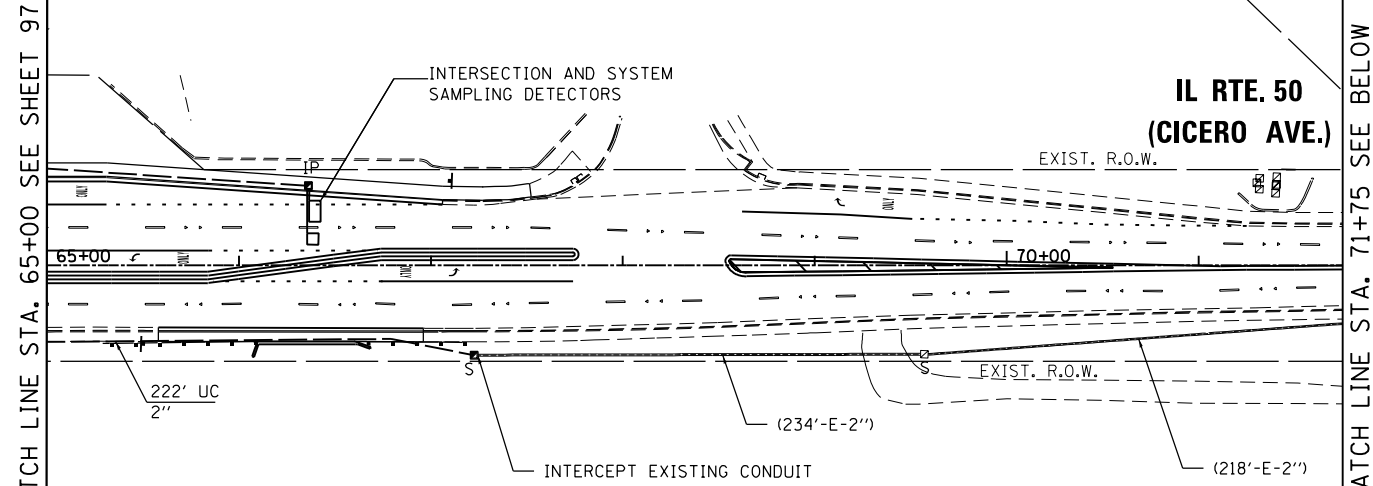
NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT  
FOR THIS PROJECT SHALL BE "ECONOLITE"  
TO MATCH THE EXISTING ADJACENT SYSTEM.

IL RTE. 50  
(CICERO AVE.)



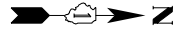
MATCH LINE STA. 61+25 SEE SHEET 97

IL RTE. 50  
(CICERO AVE.)

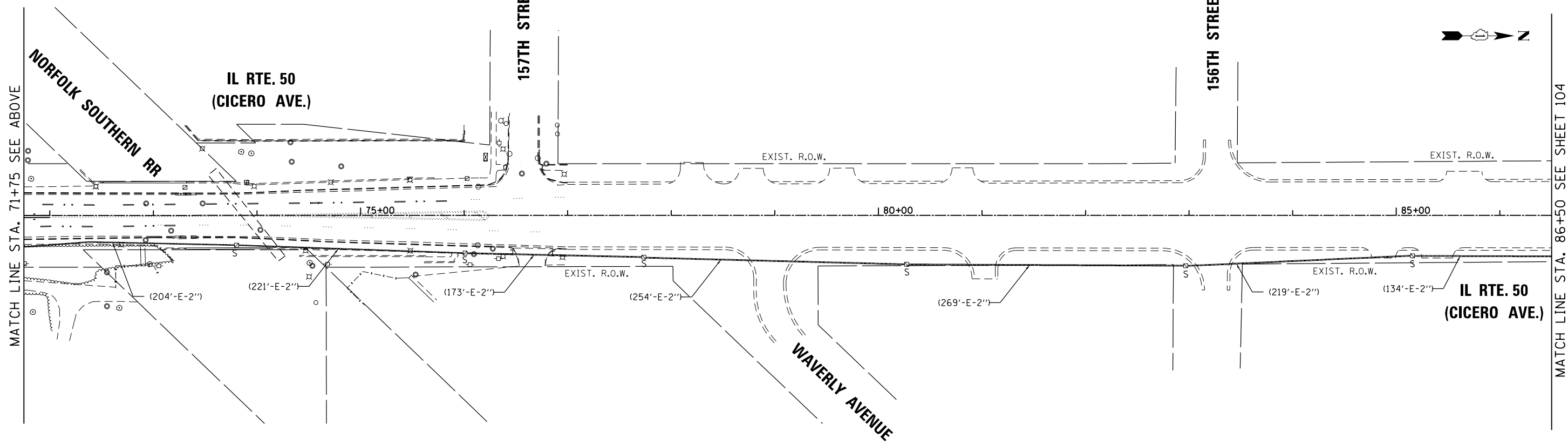


MATCH LINE STA. 65+00 SEE SHEET 97

MATCH LINE STA. 71+75 SEE BELOW



MATCH LINE STA. 71+75 SEE ABOVE



MATCH LINE STA. 86+50 SEE SHEET 104

IL RTE. 50  
(CICERO AVE.)

FILE NAME = O:\Engineering\LiveProjects\13003 IDOT DUR\13003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-plt-ts- IL50 Inter-50.dgn



USER NAME = johnn	DESIGNED - DH	REVISED -
DRAWN - DH	REVISIONS -	
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PLOT DATE = 7/21/2017	DATE - 7/21/2017	REVISED -

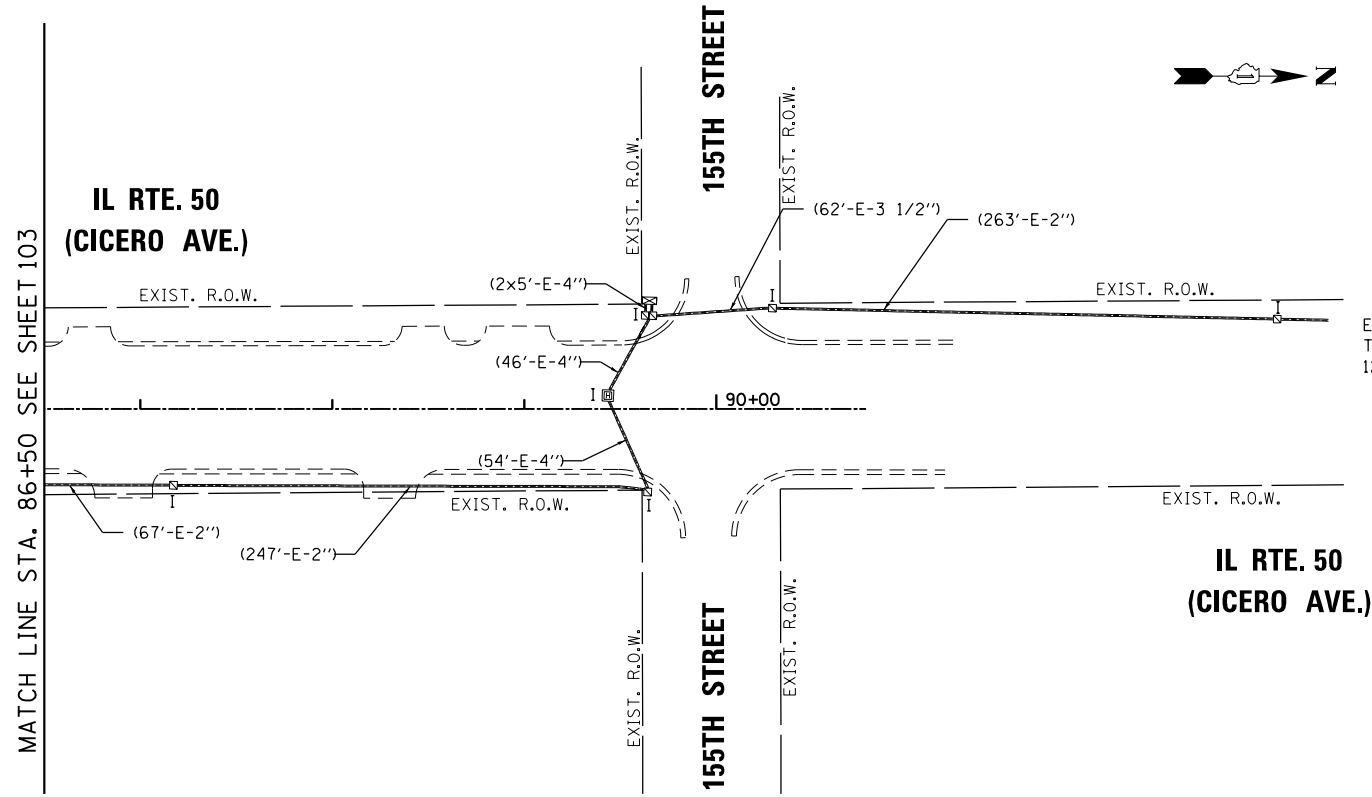
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

TRAFFIC SIGNAL INTERCONNECT PLAN  
IL RTE. 50 (CICERO AVE.)

SCALE: SHEET OF SHEETS STA. TO STA.

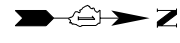
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1)	COOK	184	103
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

ECON 135



EXISTING INTERCONNECT CONTINUOUS TO 147TH STREET (IL RTE. 83) 12F IN 2" CONDUIT

MATCH LINE STA. 86+50 SEE SHEET 103



NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**ECON 135**

FILE NAME = Q:\Engineering\LiveProjects\3003 IDOT DUR\3003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-sht-ts- IL50 Inter-502.dgn



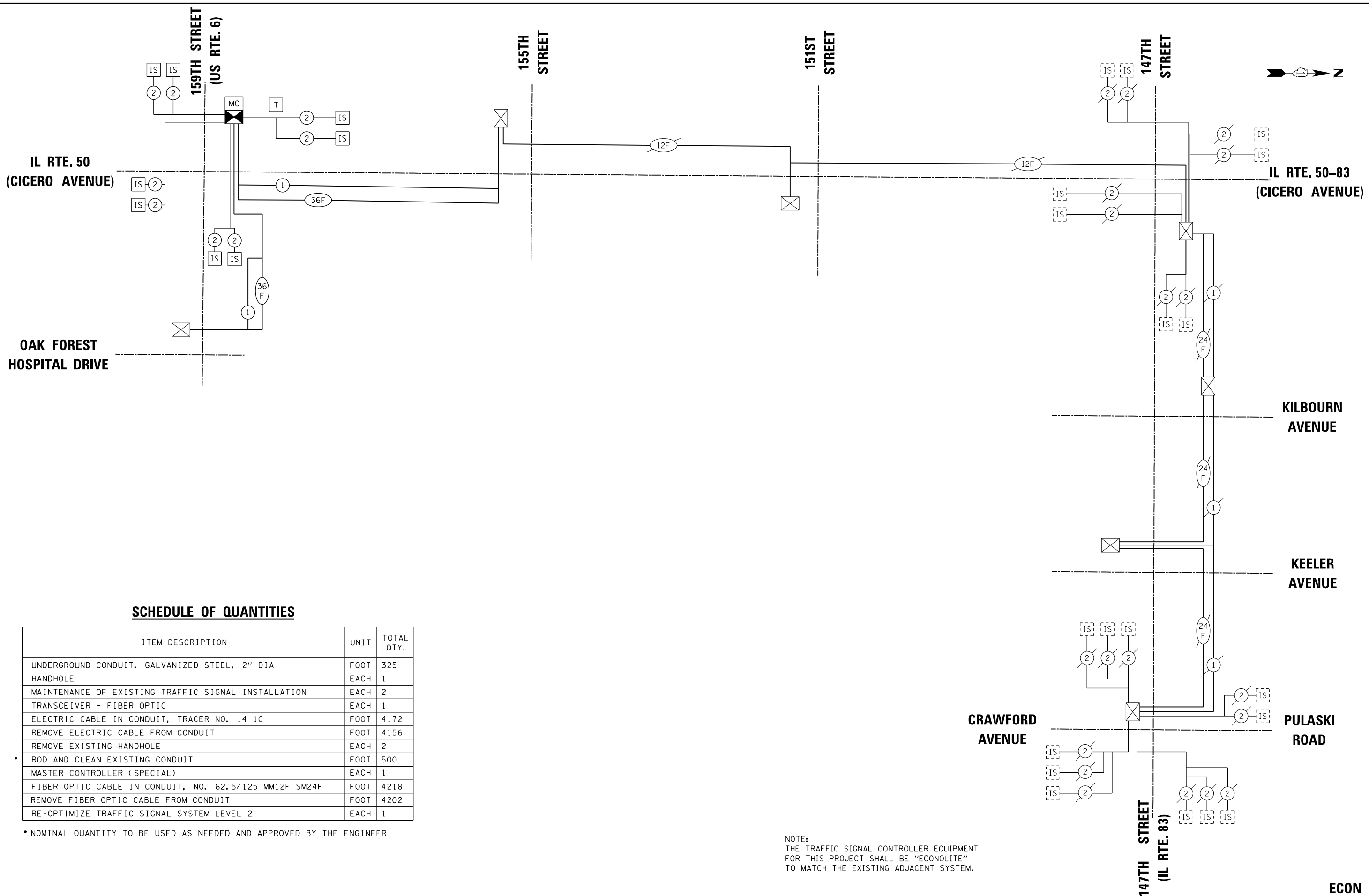
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DRAWN - DH	CHECKED - TGM	REVISED -
DATE - 7/21/2017		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>TRAFFIC SIGNAL INTERCONNECT PLAN IL RTE. 50 (CICERO AVE.)</b>			
SCALE:	SHEET	OF SHEETS	STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	104
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

FILE NAME = Q:\Engineering\Live\Projects\13003 IDOT DUR\13003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-sht-ts- IL50 Inter-Schematic-S01.dgn



**SCHEDULE OF QUANTITIES**

ITEM DESCRIPTION	UNIT	TOTAL QTY.
UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA	FOOT	325
HANDHOLE	EACH	1
MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	2
TRANSCEIVER - FIBER OPTIC	EACH	1
ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1C	FOOT	4172
REMOVE ELECTRIC CABLE FROM CONDUIT	FOOT	4156
REMOVE EXISTING HANDHOLE	EACH	2
ROD AND CLEAN EXISTING CONDUIT	FOOT	500
MASTER CONTROLLER (SPECIAL)	EACH	1
FIBER OPTIC CABLE IN CONDUIT, NO. 62.5/125 MM12F SM24F	FOOT	4218
REMOVE FIBER OPTIC CABLE FROM CONDUIT	FOOT	4202
RE-OPTIMIZE TRAFFIC SIGNAL SYSTEM LEVEL 2	EACH	1

\* NOMINAL QUANTITY TO BE USED AS NEEDED AND APPROVED BY THE ENGINEER

NOTE:  
THE TRAFFIC SIGNAL CONTROLLER EQUIPMENT FOR THIS PROJECT SHALL BE "ECONOLITE" TO MATCH THE EXISTING ADJACENT SYSTEM.

**ECON 135**



USER NAME = johnn	DESIGNED - DH	REVISED -
PLOT SCALE = 100.000' / in.	DRAWN - DH	REVISED -
PLOT DATE = 7/21/2017	CHECKED - TGM	REVISED -
	DATE - 7/21/2017	REVISED -

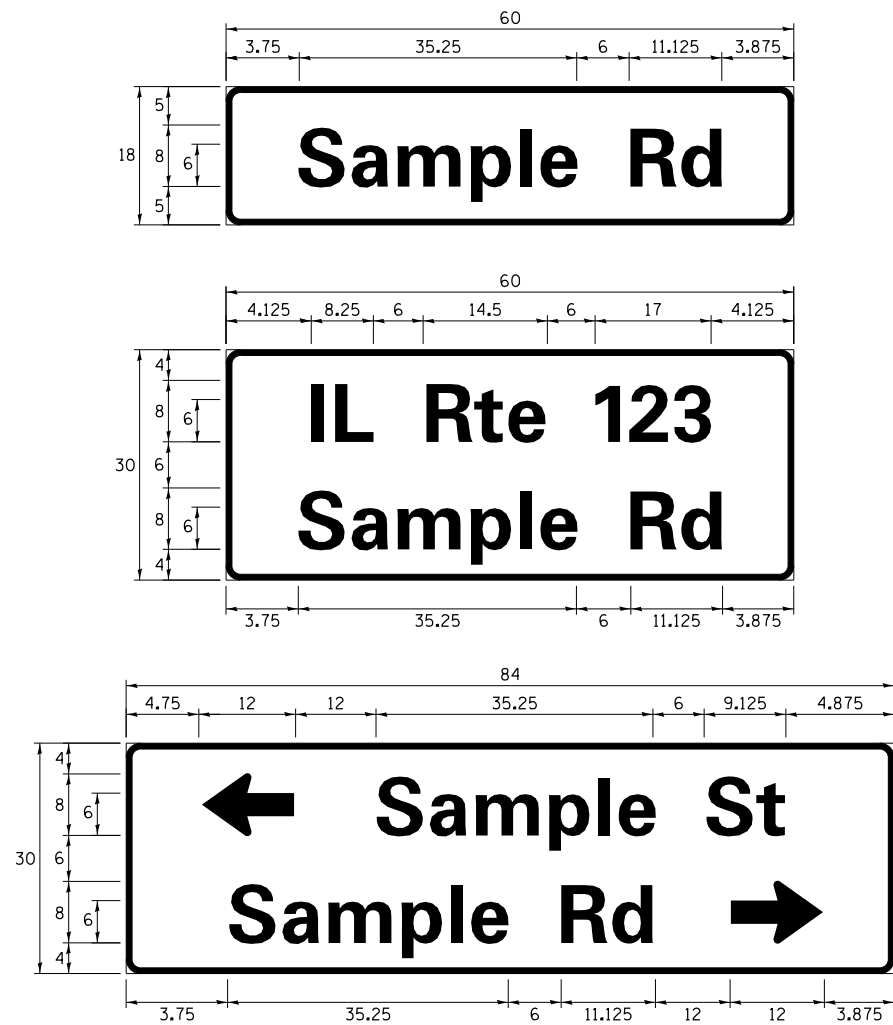
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**PROPOSED INTERCONNECT SCHEMATIC AND  
INTERCONNECT SCHEDULE OF QUANTITIES  
IL RTE. 50 (CICERO AVE.)**

SCALE: SHEET OF SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1)	COOK	184	105
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

**SIGN PANEL – TYPE 1 OR TYPE 2**



DESIGN SERIES	AREA (SQ FT)	SIGN PANEL TYPE	SHEETING TYPE	QTY. REQUIRED
D OR C	-	1 OR 2	ZZ	-

ALL DIMENSIONS ARE IN INCHES EXCEPT NOTED OTHERWISE

**COMMON STREET NAME ABBREVIATIONS AND WIDTHS**

NAME	ABBREVIATION	WIDTH (INCH)	
		SERIES "C"	SERIES "D"
AVENUE	Ave	15.000	18.250
BOULEVARD	Blvd	17.125	20.000
CIRCLE	Cir	11.125	13.000
COURT	Ct	8.250	9.625
DRIVE	Dr	8.625	10.125
HIGHWAY	Hwy	18.375	22.000
ILLINOIS	IL	7.000	8.250
LANE	Ln	9.125	10.750
PARKWAY	Pkwy	23.375	27.375
PLACE	Pl	7.125	7.750
ROAD	Rd	9.625	11.125
ROUTE	Rte	12.625	14.500
STREET	St	8.000	9.125
TERRACE	Ter	12.625	14.625
TRAIL	Tr	7.750	9.125
UNITED STATES	US	10.375	12.250

**GENERAL NOTES**

- WHERE MAST ARM MOUNTED STREET NAME SIGNS ARE SPECIFIED, THE MAST ARM ASSEMBLY AND POLES SHALL BE DESIGNED TO SUPPORT THE LOADINGS CALLED FOR ON STANDARDS 877001, 877002, 877006, 877011 AND 877012, AS APPLICABLE, PLUS TWO (2) SIGN PANELS 2'-6" X 8'-0" MOUNTED AS SHOWN. THE DESIGN SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CURRENT "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES, AND TRAFFIC SIGNALS" AS PUBLISHED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS FOR 80 M.P.H. WIND VELOCITY.
- ALL SIGNS SHALL CONSIST OF A WHITE LEGEND AND BORDER (TYPE ZZ SHEETING) ON A GREEN BACKGROUND (TYPE ZZ SHEETING)
- THE SIGN LENGTH SHALL BE IN 6-INCH INCREMENTS, BUT THE OVERALL LENGTH SHALL NOT EXCEED 8'-0". ALL BORDERS SHALL BE 3/4" WIDE. CORNER RADIUS SHALL BE 1-7/8". THE SPACING BETWEEN THE WORDS SHOULD BE 6", IF POSSIBLE, BUT MAY BE REDUCED TO 5" WHEN SPACING IS CRITICAL. A MINIMUM OF 2-1/2" SHALL BE INCLUDED BETWEEN THE WORD AND THE RIGHT AND LEFT EDGES OF THE SIGN.
- A PREFERRED METHOD FOR THE SIGN DESIGN IS TO USE SERIES "D" LETTER ON A ONE-LINE SIGN 18" IN HEIGHT AND A MAXIMUM OF 8'-0" IN WIDTH. IF SERIES "D" DOES NOT FIT ON A 8'-0" SIGN, THEN SERIES "C" SHOULD BE TRIED. IF SERIES "C" DOES NOT FIT ON A 8'-0" SIGN, A 30" HIGH TWO-LINE SIGN CAN BE USED. THE CROSSROAD DESIGNATION AS TO STREET, AVENUE, ETC. SHOULD BE SPELLED OUT ON THE SECOND LINE, IF THE ABBREVIATION CANNOT FIT ON THE FIRST LINE.
- LED ILLUMINATED STREET NAME SIGNS CAN BE USED IN PLACE OF REGULAR SIGN PANELS BUT ANY SPECIAL WORDING AND SYMBOLOLOGY MUST BE APPROVED BY THE DEPARTMENT. GENERAL DESIGN REQUIREMENT AS LISTED ABOVE (COLOR, FONT, SIZE, ETC.) MUST BE FOLLOWED.
- SIGNFIX ALUMINUM CHANNEL FRAMING SYSTEM SHALL BE USED FOR ALL SIGNS ATTACHED TO SIGNAL POLES AND POSTS.

**LOCAL SUPPLIERS:**

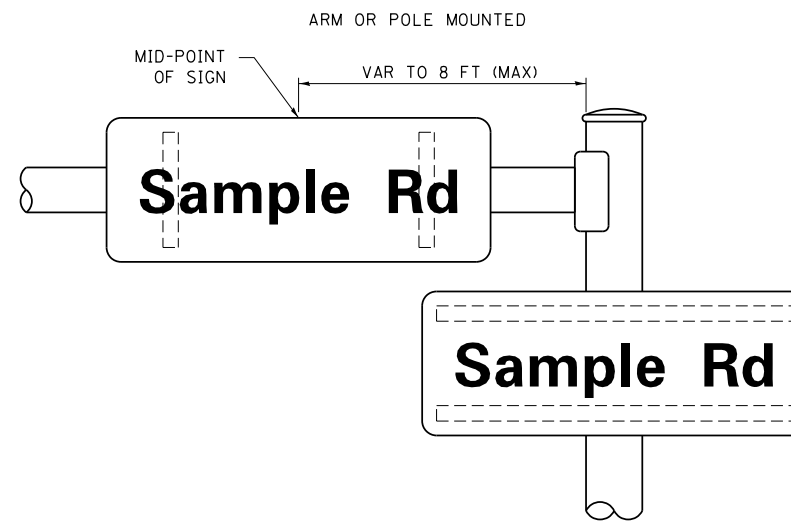
- J.O. HERBERT COMPANY, INC  
MIDLOTHIAN, VA
- WESTERN REMAC, INC.  
WOODRIDGE, IL

**PARTS LISTING:**

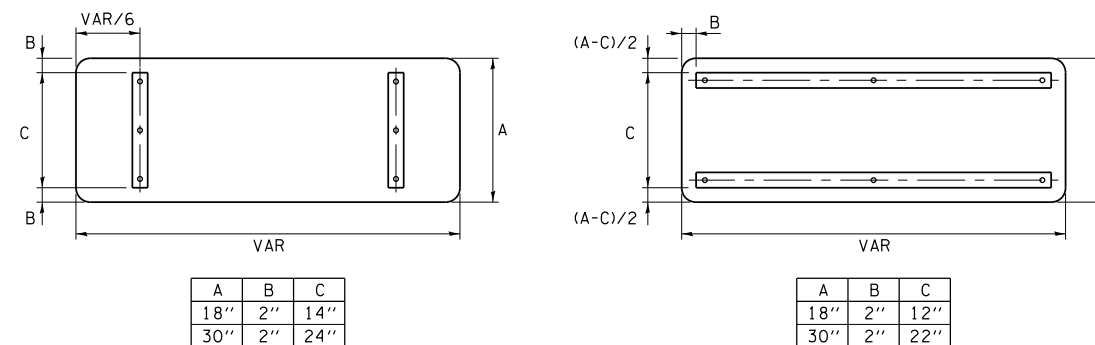
- SIGN CHANNEL PART \*HPN053 (MED. CHANNEL)  
1/4" x 14 x 1" H.W.H. #3  
SELF TAPPING WITH NEOPRENE WASHER
- SIGN SCREWS PART \*HPN034 (UNIVERSAL)  
CHANNEL CLAMPS WITH STAINLESS STEEL STRAPPING
- BRACKETS

OTHER BRANDS OF MOUNTING HARDWARE ARE ACCEPTABLE, BASED UPON THE DEPARTMENT'S APPROVAL AND COMPATIBILITY WITH THE CHANNEL/BRACKET OF THE ABOVE PRODUCT.

**MOUNTING LOCATION**



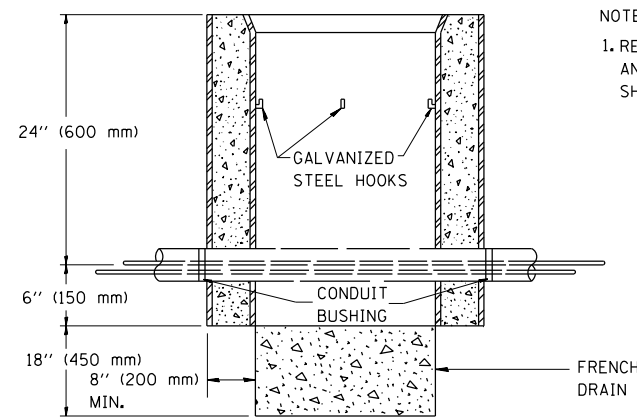
**SUPPORTING CHANNELS**



**STANDARD ALPHABETS SPACING CHART**

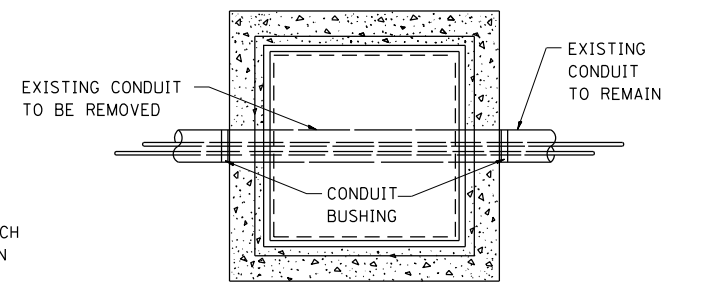
( 8" ) UPPER CASE AND ( 6" ) LOWER CASE

CHARACTER	FHWA SERIES "C"			FHWA SERIES "D"			
	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)	CHARACTER	LEFT SPACING (INCH)	WIDTH (INCH)	RIGHT SPACING (INCH)
A	0.240	5.122	0.240	A	0.240	6.804	0.240
B	0.880	4.482	0.480	B	0.960	5.446	0.400
C	0.720	4.482	0.720	C	0.800	5.446	0.800
D	0.880	4.482	0.720	D	0.960	5.446	0.800
E	0.880	4.082	0.480	E	0.960	4.962	0.400
F	0.880	4.082	0.240	F	0.960	4.962	0.240
G	0.720	4.482	0.720	G	0.800	5.446	0.800
H	0.880	4.482	0.880	H	0.960	5.446	0.960
I	0.880	1.120	0.880	I	0.960	1.280	0.960
J	0.240	4.082	0.880	J	0.240	5.122	0.960
K	0.880	4.482	0.480	K	0.960	5.604	0.400
L	0.880	4.082	0.240	L	0.960	4.962	0.240
M	0.880	5.284	0.880	M	0.960	6.244	0.960
N	0.880	4.482	0.880	N	0.960	5.446	0.960
O	0.720	4.722	0.720	O	0.800	5.684	0.800
P	0.880	4.482	0.720	P	0.960	5.446	0.240
Q	0.720	4.722	0.720	Q	0.800	5.684	0.800
R	0.880	4.482	0.480	R	0.960	5.446	0.400
S	0.480	4.482	0.480	S	0.400	5.446	0.400
T	0.240	4.082	0.240	T	0.240	4.962	0.240
U	0.880	4.482	0.880	U	0.960	5.446	0.960
V	0.240	4.962	0.240	V	0.240	6.084	0.240
W	0.240	6.084	0.240	W	0.240	7.124	0.240
X	0.240	4.722	0.240	X	0.400	5.446	0.400
Y	0.240	5.122	0.240	Y	0.240	6.884	0.240
Z	0.480	4.482	0.480	Z	0.400	5.446	0.400
a	0.320	3.842	0.640	a	0.400	4.562	0.720
b	0.720	4.082	0.480	b	0.800	4.802	0.480
c	0.480	4.002	0.240	c	0.480	4.722	0.240
d	0.480	4.082	0.720	d	0.480	4.802	0.800
e	0.480	4.082	0.320	e	0.480	4.722	0.320
f	0.320	2.480	0.160	f	0.320	2.882	0.160
g	0.480	4.082	0.720	g	0.480	4.802	0.800
h	0.720	4.082	0.640	h	0.800	4.722	0.720
i	0.720	1.120	0.720	i	0.800	1.280	0.800
j	0.000	2.320	0.720	j	0.000	2.642	0.800
k	0.720	4.322	0.160	k	0.800	5.122	0.160
l	0.720	1.120	0.720	l	0.800	1.280	0.800
m	0.720	6.724	0.640	m	0.800	7.926	0.720
n	0.720	4.082	0.640	n	0.800	4.722	0.720
o	0.480	4.082	0.480	o	0.480	4.882	0.480
p	0.720	4.082	0.480	p	0.800	4.802	0.480
q	0.480	4.082	0.720	q	0.480	4.802	0.800
r	0.720	2.642	0.160	r	0.800	3.042	0.160
s	0.320	3.362	0.240	s	0.320	3.762	0.240
t	0.080	2.882	0.080	t	0.080	3.202	0.080
u	0.640	4.082	0.720	u	0.720	4.722	0.800
v	0.160	4.722	0.160	v	0.160	5.684	0.160
w	0.160	7.524	0.160	w	0.160	9.046	0.160
x	0.000	5.202	0.000	x	0.000	6.244	0.000
y	0.160	4.962	0.160	y	0.160	6.004	0.160
z	0.240	3.362	0.240	z	0.240	4.002	0.240
1	0.720	1.680	0.880	1	0.800	2.000	0.960
2	0.480	4.482	0.480	2	0.800	5.446	0.800
3	0.480	4.482	0.480	3	1.440	5.446	0.800
4	0.240	4.962	0.720	4	0.160	6.004	0.960
5	0.480	4.482	0.480	5	0.800	5.446	0.800
6	0.720	4.482	0.720	6	0.800	5.446	0.800
7	0.240	4.482	0.720	7	0.560	5.446	0.560
8	0.480	4.482	0.480	8	0.800	5.446	0.800
9	0.480	4.482	0.480	9	0.800	5.446	0.800
0	0.720	4.722	0.720	0	0.800	5.684	0.800
-	0.240	2.802	0.240	-	0.240	2.802	0.240



NOTES:

1. REMOVAL OF EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHING SHALL BE INCIDENTAL TO THE HANDHOLE.



ELEVATION

PLAN

DETAIL  
HANDHOLE TO INTERCEPT EXISTING CONDUIT

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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

HANDHOLE TO INTERCEPT EXISTING CONDUIT

SCALE: NONE SHEET 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	107
TS-03		CONTRACT NO. 60K73		
ILLINOIS FED. AID PROJECT				

# TRAFFIC SIGNAL LEGEND

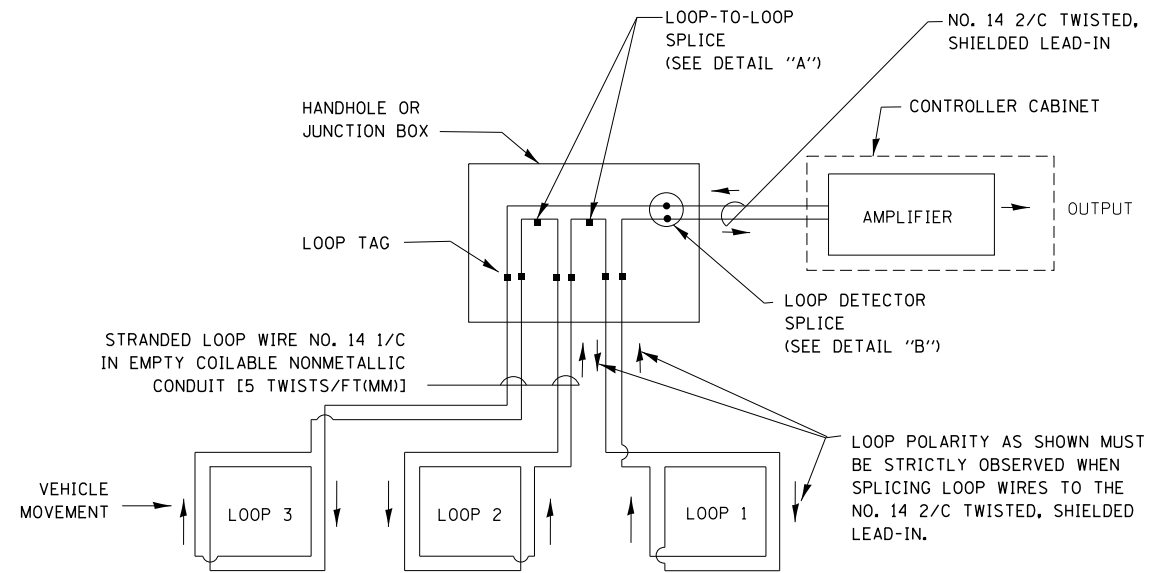
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ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED	ITEM	EXISTING	PROPOSED
CONTROLLER CABINET			HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD -(P) PROGRAMMABLE SIGNAL HEAD		
COMMUNICATION CABINET			HEAVY DUTY HANDHOLE -SQUARE -ROUND	 	 	SIGNAL HEAD WITH BACKPLATE -(P) PROGRAMMABLE SIGNAL HEAD -(RB) RETROREFLECTIVE BACKPLATE		
MASTER CONTROLLER			DOUBLE HANDHOLE			PEDESTRIAN SIGNAL HEAD AT RAILROAD INTERSECTIONS		
MASTER MASTER CONTROLLER			JUNCTION BOX			PEDESTRIAN SIGNAL HEAD WITH COUNTDOWN TIMER		
UNINTERRUPTABLE POWER SUPPLY			RAILROAD CANTILEVER MAST ARM			ILLUMINATED SIGN "NO LEFT TURN"/"NO RIGHT TURN"		
SERVICE INSTALLATION -(P) POLE MOUNTED			RAILROAD FLASHING SIGNAL			NUMBER OF CONDUCTORS, ELECTRIC CABLE NO. 14, UNLESS NOTED OTHERWISE. ALL DETECTOR LOOP CABLE TO BE SHIELDED		
SERVICE INSTALLATION -(G) GROUND MOUNTED -(GM) GROUND MOUNTED METERED	 	 	RAILROAD CROSSING GATE			GROUND CABLE IN CONDUIT, NO. 6 SOLID COPPER (GREEN)		
TELEPHONE CONNECTION			RAILROAD CROSSBUCK			ELECTRIC CABLE IN CONDUIT, TRACER NO. 14 1/C		
STEEL MAST ARM ASSEMBLY AND POLE			RAILROAD CONTROLLER CABINET			COAXIAL CABLE		
ALUMINUM MAST ARM ASSEMBLY AND POLE			UNDERGROUND CONDUIT (UC), GALVANIZED STEEL			VENDOR CABLE		
STEEL COMBINATION MAST ARM ASSEMBLY AND POLE WITH LUMINAIRE			TEMPORARY SPAN WIRE, TETHER WIRE, AND CABLE			COPPER INTERCONNECT CABLE, NO. 18, 3 PAIR TWISTED, SHIELDED		
SIGNAL POST -(BM) BARREL MOUNTED - TEMPORARY			SYSTEM ITEM	S	SP	FIBER OPTIC CABLE -NO. 62.5/125, MM12F -NO. 62.5/125, MM12F SM12F -NO. 62.5/125, MM12F SM24F		
WOOD POLE			INTERSECTION ITEM	I	IP	GROUND ROD -(C) CONTROLLER -(M) MAST ARM -(P) POST -(S) SERVICE		
GUY WIRE			REMOVE ITEM		R			
SIGNAL HEAD			RELOCATE ITEM		RL			
SIGNAL HEAD WITH BACKPLATE			ABANDON ITEM		A			
SIGNAL HEAD OPTICALLY PROGRAMMED			CONTROLLER CABINET AND FOUNDATION TO BE REMOVED		RCF			
FLASHER INSTALLATION -(FS) SOLAR POWERED	 	 	MAST ARM POLE AND FOUNDATION TO BE REMOVED		RMF			
PEDESTRIAN SIGNAL HEAD			SIGNAL POST AND FOUNDATION TO BE REMOVED		RPF			
PEDESTRIAN PUSH BUTTON -(APS) ACCESSIBLE PEDESTRIAN PUSH BUTTON			DETECTOR LOOP, TYPE I	 	 			
RADAR DETECTION SENSOR			PREFORMED DETECTOR LOOP	 	 			
VIDEO DETECTION CAMERA			SAMPLING (SYSTEM) DETECTOR	 	 			
RADAR/VIDEO DETECTION ZONE			INTERSECTION AND SAMPLING (SYSTEM) DETECTOR	 	 			
PAN, TILT, ZOOM (PTZ) CAMERA			QUEUE AND SAMPLING (SYSTEM) DETECTOR	 	 			
EMERGENCY VEHICLE LIGHT DETECTOR			WIRELESS DETECTOR SENSOR					
CONFIRMATION BEACON			WIRELESS ACCESS POINT					
WIRELESS INTERCONNECT								
WIRELESS INTERCONNECT RADIO REPEATER								



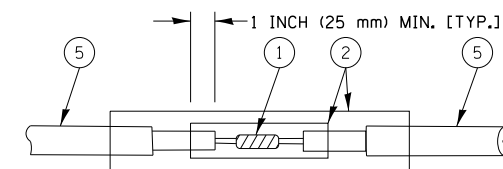
**LOOP DETECTOR NOTES**

1. EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
2. THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
3. EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
4. ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
5. IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
6. LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
7. PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

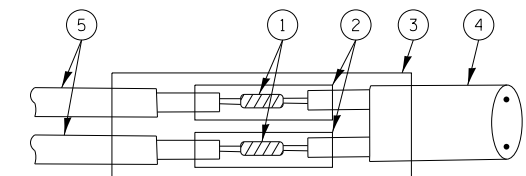


**DETECTOR LOOP WIRING SCHEMATIC**

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.



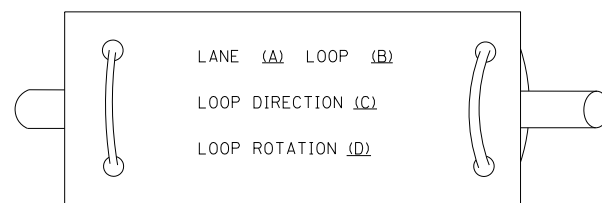
DETAIL "A"  
LOOP-TO-LOOP SPLICE



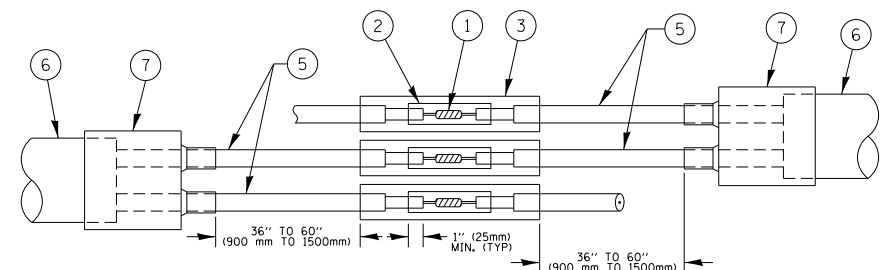
DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**TYPE I LOOP**

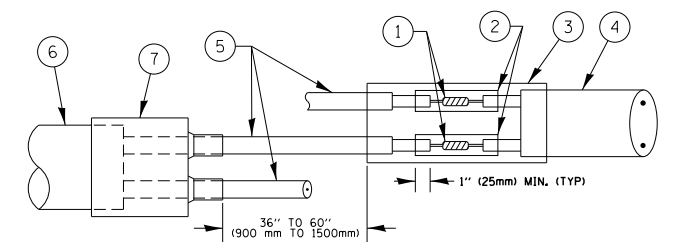
**LOOP LEAD-IN CABLE TAG**



- A. LANE 1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- B. LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- C. LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- D. LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.



DETAIL "A"  
LOOP-TO-LOOP SPLICE



DETAIL "B"  
LOOP-TO-CONTROLLER SPLICE

**PREFORMED LOOP**

**LOOP DETECTOR SPLICE**

- ① WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH. THE WESTERN UNION SPLICES SHALL BE STAGGERED.
- ② WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- ③ WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- ④ NO. 14 2/C TWISTED, SHIELDED CABLE.
- ⑤ LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- ⑥ PREFORMED LOOP
- ⑦ XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

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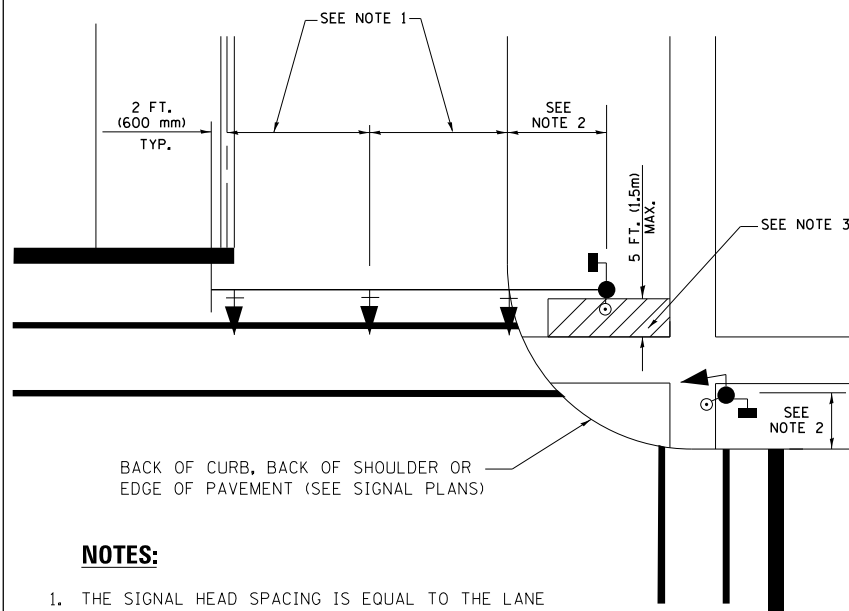
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT ONE  
STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 2 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	109
<b>TS-05</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

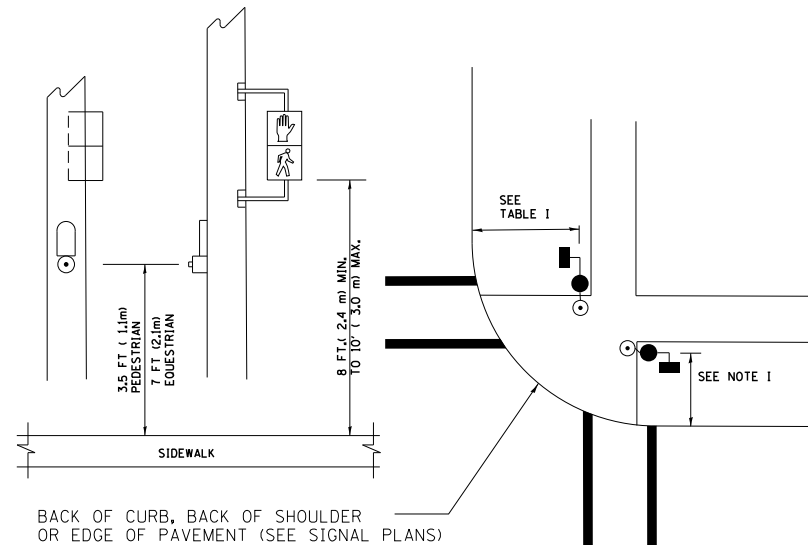
**TRAFFIC SIGNAL MAST ARM AND SIGNAL POST  
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR  
FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN  
WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.**



**NOTES:**

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

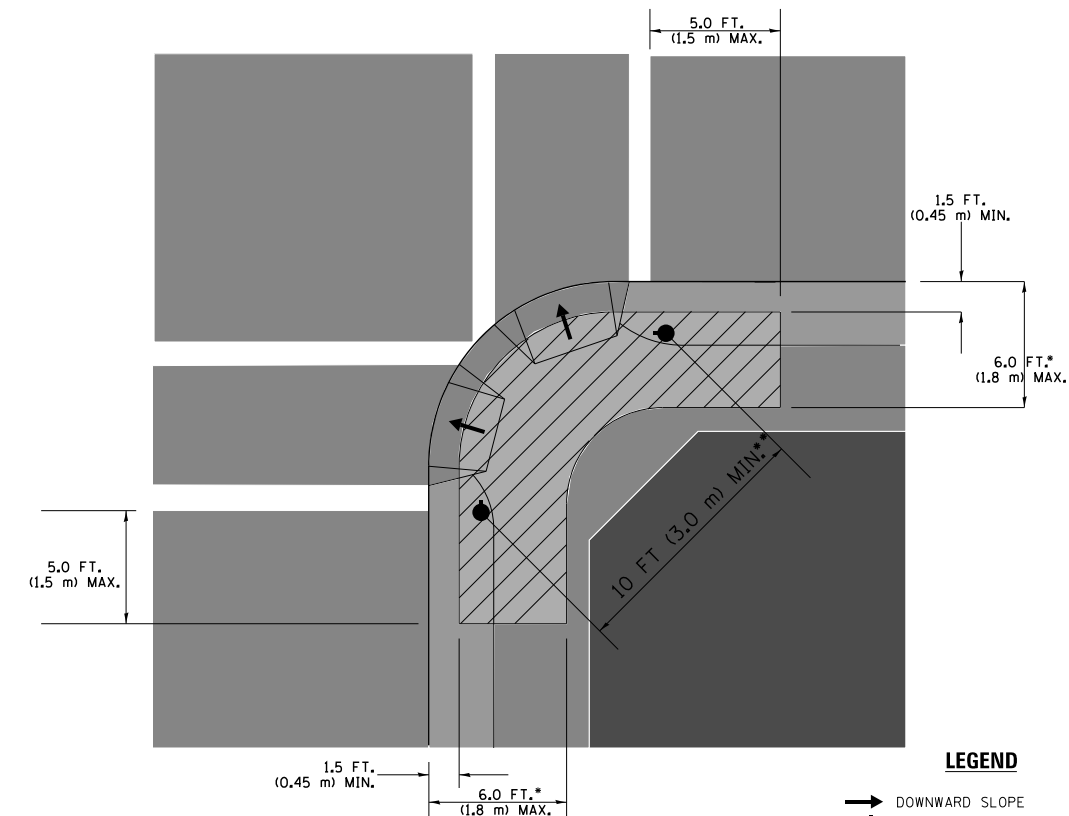
**PEDESTRIAN SIGNAL POST  
AND  
PEDESTRIAN PUSH BUTTON POST**



**NOTES:**

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

**RECOMMENDED PUSHBUTTON LOCATIONS**



**LEGEND**

- DOWNWARD SLOPE
- PEDESTRIAN PUSHBUTTON
- ▨ RECOMMENDED PUSHBUTTON LOCATIONS

- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT ( 1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPERATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

**NOTES:**

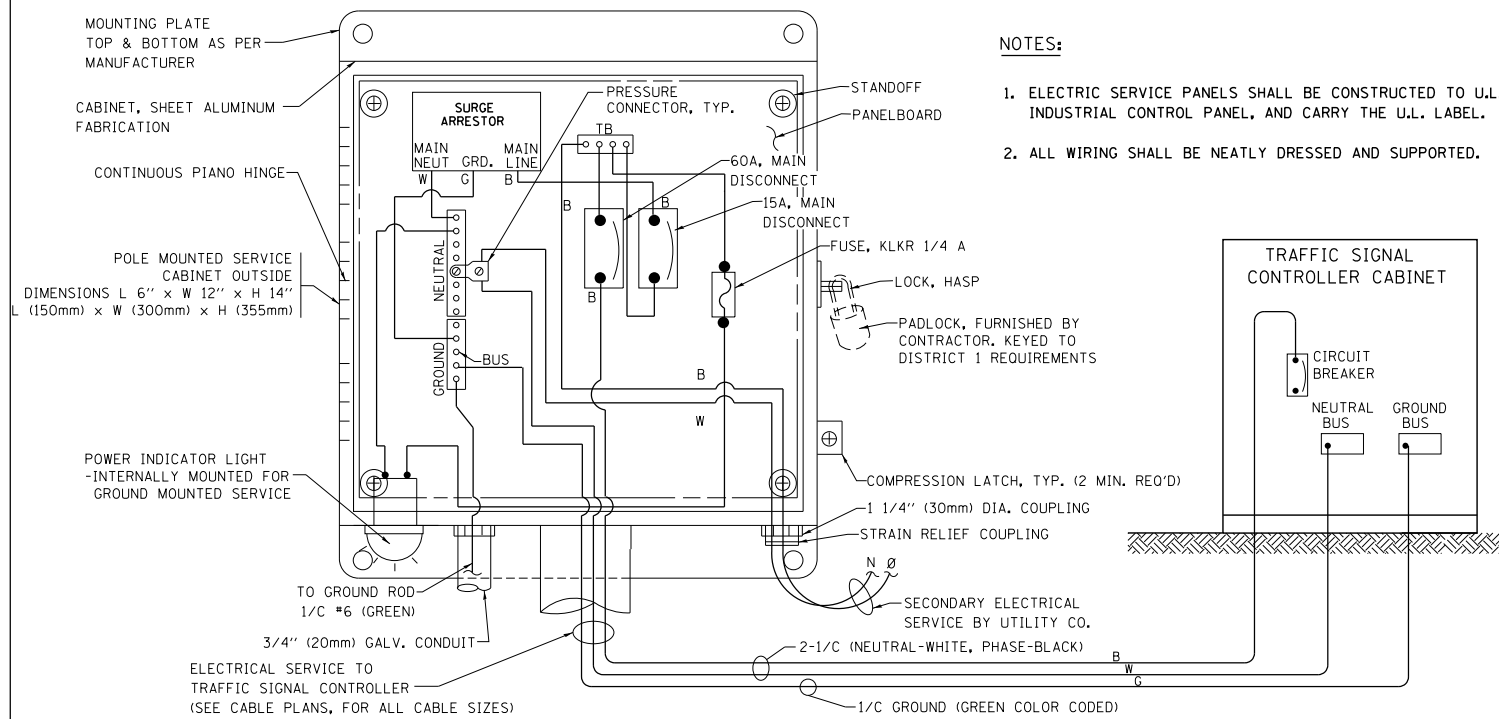
1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT. (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

**TRAFFIC SIGNAL EQUIPMENT OFFSET**

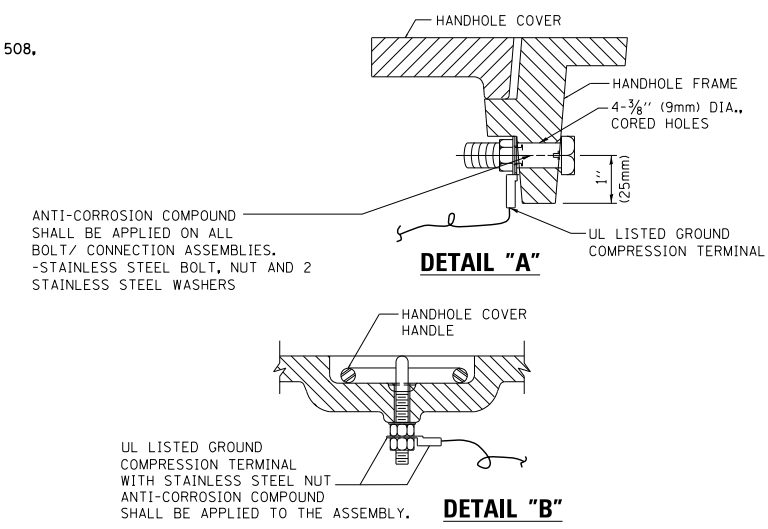
TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

**NOTES:**

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD EFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.

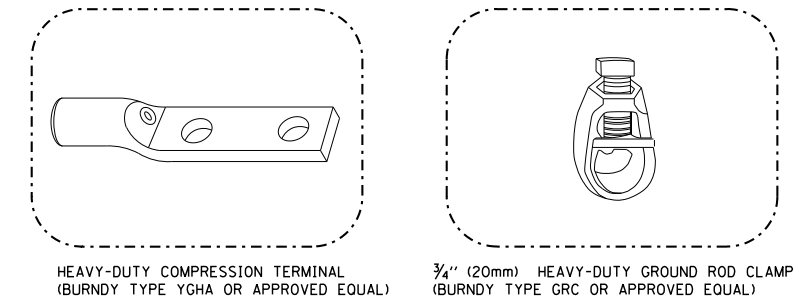
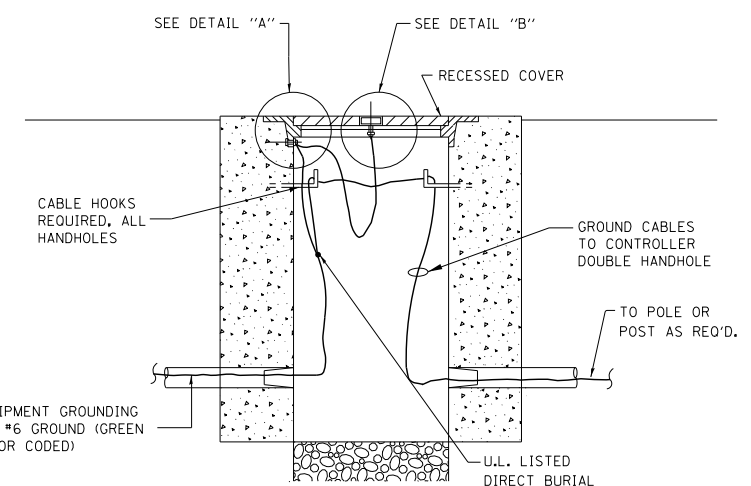


**ELECTRICAL SERVICE - PANEL DIAGRAM (TYPICAL FOR POLE AND GROUND MOUNTED SERVICE) SERVICE INSTALLATION POLE MOUNT (SHOWN) (NOT TO SCALE)**

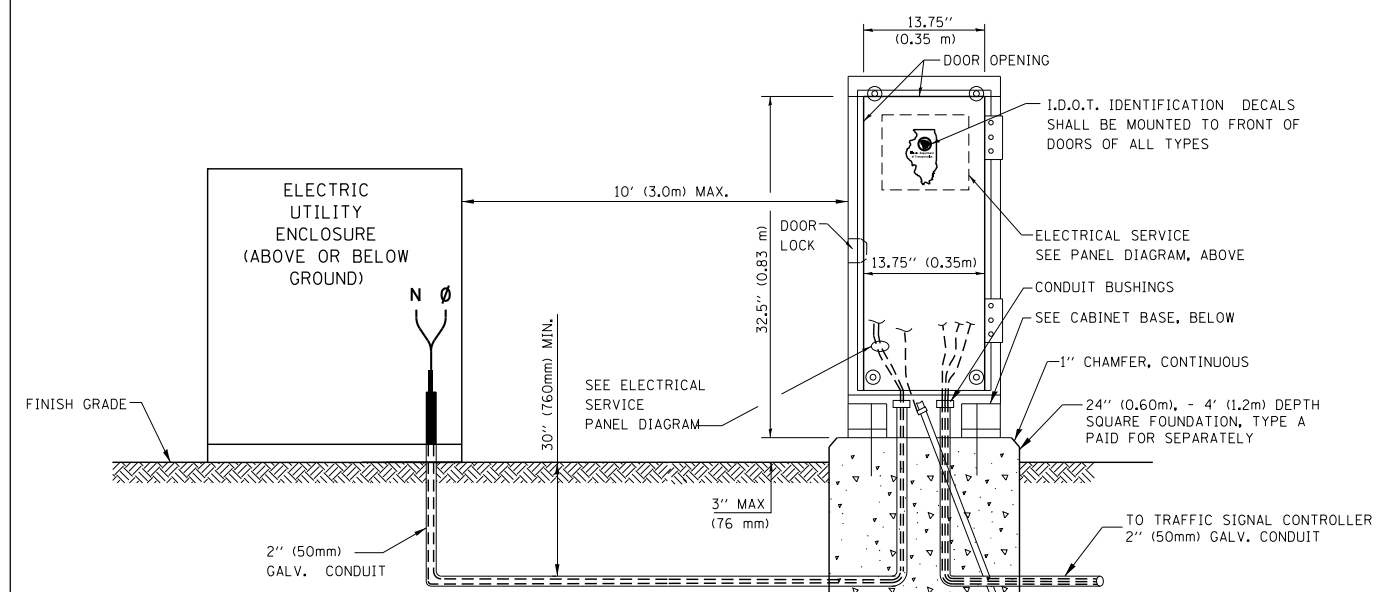
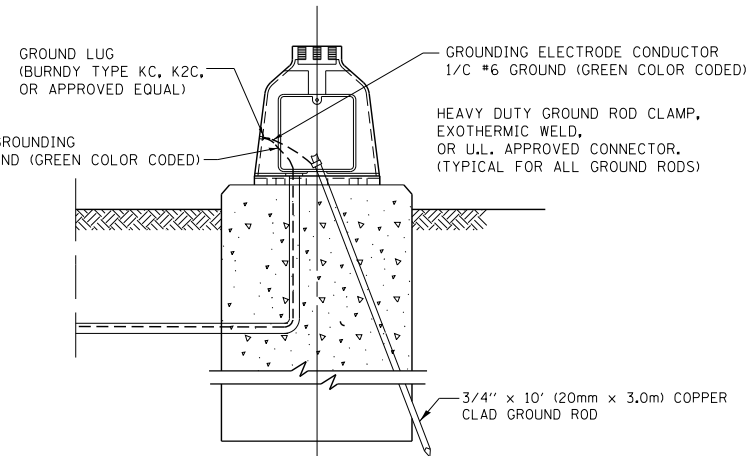
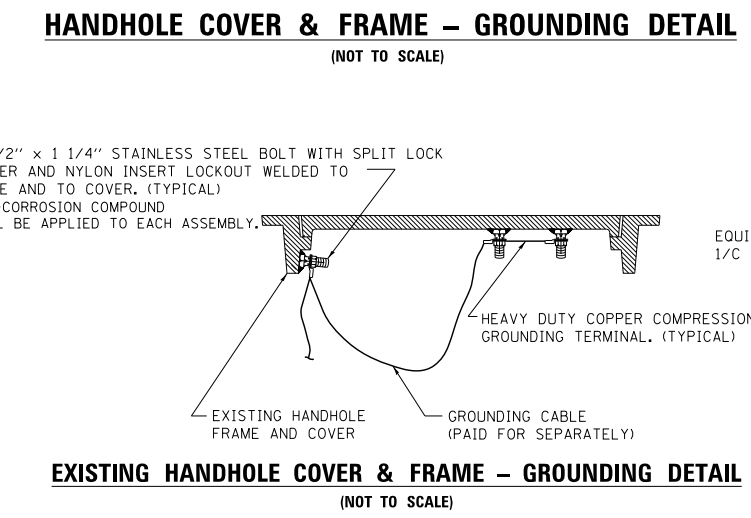


**NOTES:**  
**GROUNDING SYSTEM**

- THE GROUNDING SYSTEM SHALL CONSIST OF AN INSULATED CONDUCTOR TYPE XLP, NO. 6 A.W.G., STRANDED COPPER TO BE INSTALLED IN RACEWAYS. THE GROUNDING CABLE SHALL BE INSTALLED IN A CONTINUOUS MANNER AS SHOWN ON THE CABLE PLAN PROVIDED. ALL GROUNDING CONDUCTORS SHALL BE BONDED TO METAL ENCLOSURE (HANDHOLE, POST, MAST ARM, CONTROLLER, ETC.). GROUND ROD SHALL BE 3/4" DIA. x 10'-0" (20mm x 3.0m) LONG, COPPER CLAD. ONE GROUND ROD SHALL BE INSTALLED AT ALL POST FOUNDATIONS, POLE FOUNDATIONS, CONTROLLER CABINET FOUNDATION AND ELECTRICAL SERVICE INSTALLATION AS INDICATED ON THE CABLE PLAN. IF THERE ARE ANY SPECIAL CONDITIONS SUCH AS SUB-SURFACE CONDITIONS OR INSTALLATION PROBLEMS, THE RESIDENT ENGINEER SHALL BE NOTIFIED OR CONTACT THE BUREAU OF TRAFFIC, ILLINOIS DEPARTMENT OF TRANSPORTATION DISTRICT ONE AT (847) 705-4139.
- THE NEUTRAL CONDUCTOR AND THE GROUND CONDUCTOR SHALL BE CONNECTED IN THE SERVICE INSTALLATION. AT NO OTHER POINT IN THE TRAFFIC SIGNAL SYSTEM SHALL THE NEUTRAL AND GROUND CONDUCTORS BE CONNECTED.
- ALL EQUIPMENT GROUNDING CONDUCTORS SHALL TERMINATE AT THE GROUND BUS IN THE CONTROLLER CABINET.
- THE CONTRACTOR SHALL PROVIDE A GROUND CABLE WITH CONNECTORS BETWEEN THE HANDHOLE COVER AND HANDHOLE FRAME.

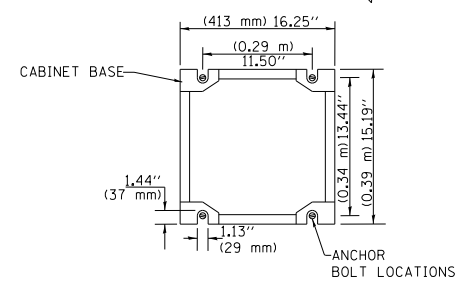


- NOTES:**
- ALL CLAMPS SHALL BE BRONZE OR COPPER, UL APPROVED.
  - GROUND CABLE SHALL BE LOOPED OVER HOOKS IN THE HANDHOLES 6.5' (2.0m) SLACK SHALL BE PROVIDED IN SINGLE HANDHOLES 13' (4.0m) OF SLACK SHALL BE PROVIDED IN DOUBLE HANDHOLES. 5' (1.4m) OF SLACK SHALL BE PROVIDED BETWEEN FRAME AND COVER.



**SERVICE INSTALLATION GROUND MOUNT (NOT TO SCALE)**

**CABINET - BASE BOLT PATTERN (NOT TO SCALE)**



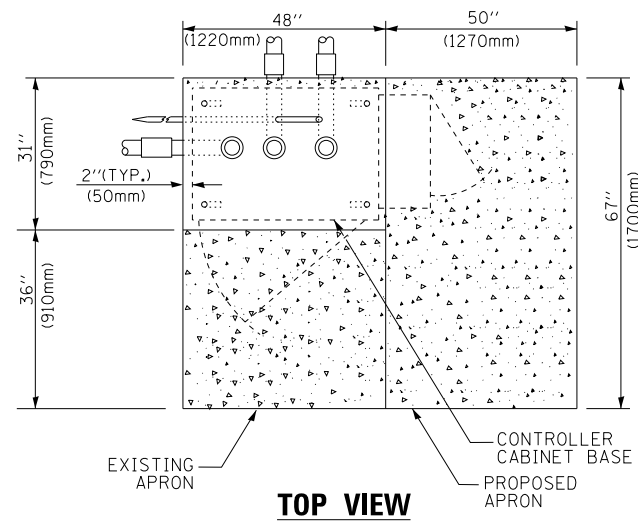
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		DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

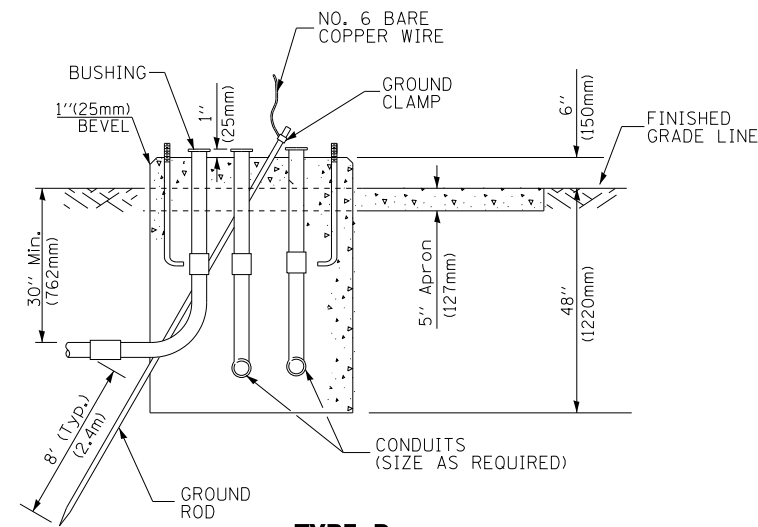
**DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS**

SCALE: NONE SHEET NO. 4 OF 7 SHEETS STA. TO STA.

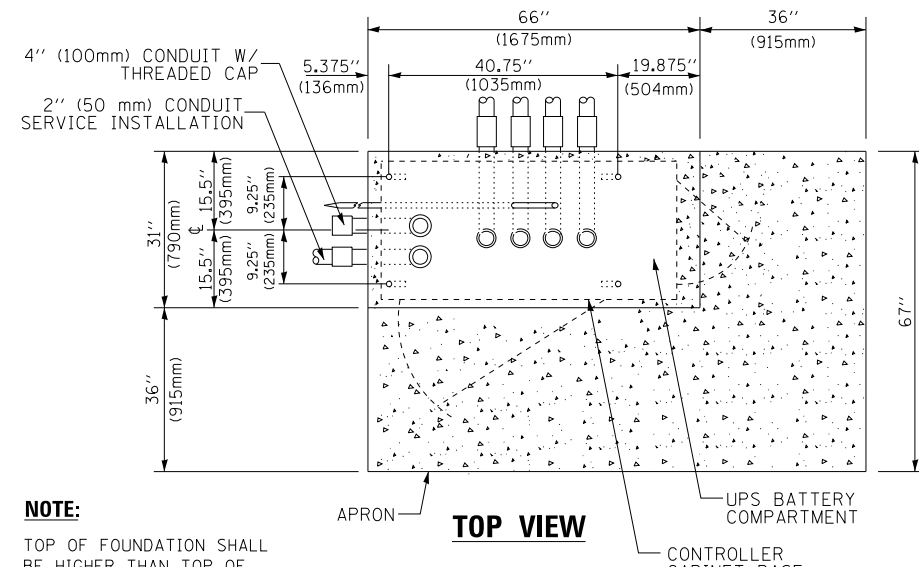
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	111
<b>TS-05</b>		CONTRACT NO.	60K73	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**TOP VIEW**



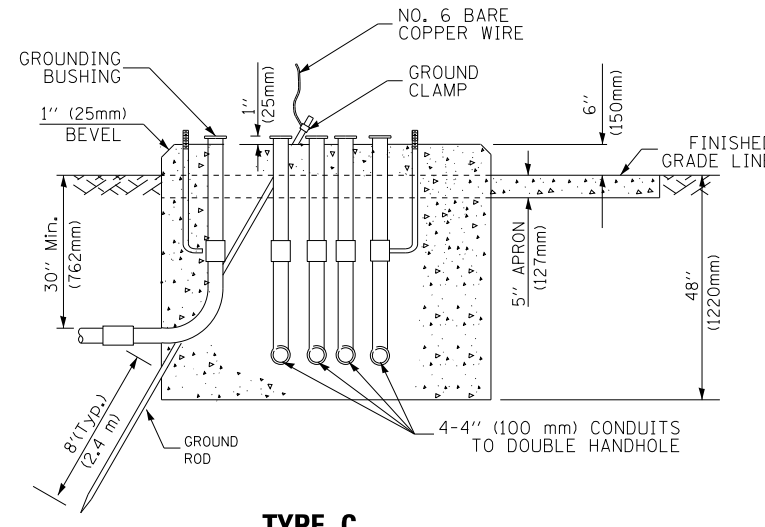
**TYPE D  
FOR GROUND MOUNTED  
CONTROLLER CABINET  
AND UPS BATTERY CABINET**



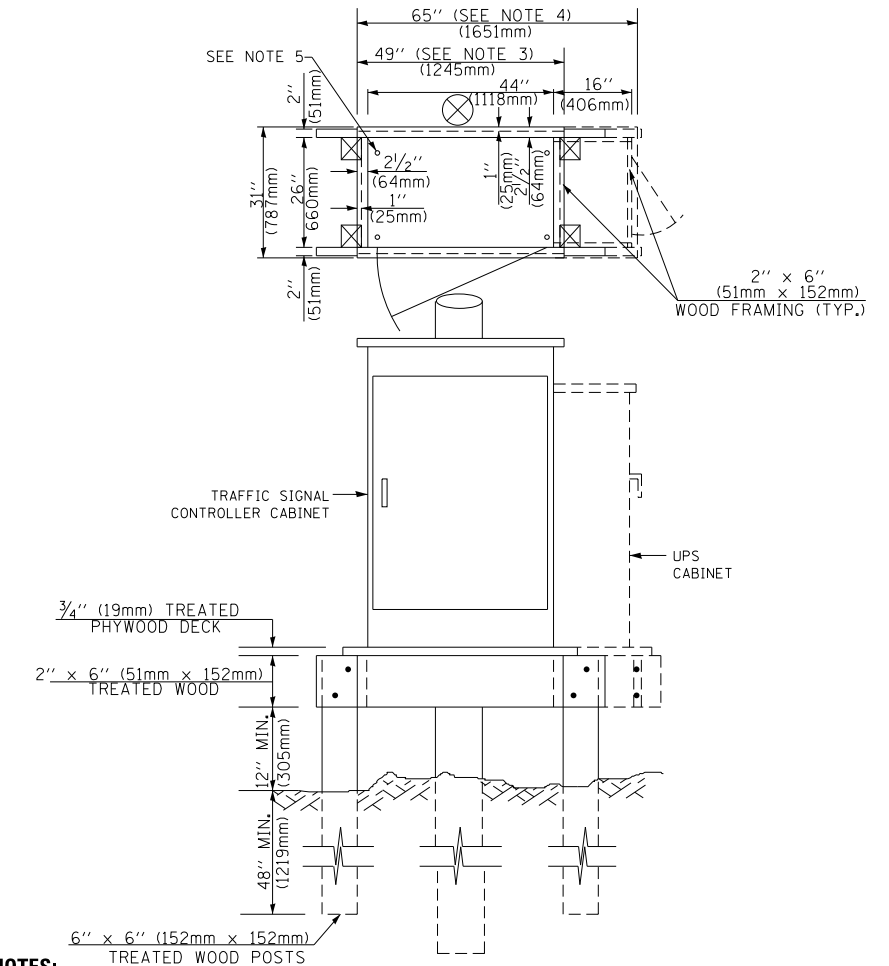
**TOP VIEW**

**NOTE:**

TOP OF FOUNDATION SHALL BE HIGHER THAN TOP OF DOUBLE HANDHOLE



**TYPE C  
FOR GROUND MOUNTED  
SUPER P (TYPE IV) AND SUPER R (TYPE V)  
CONTROLLER CABINETS**



**NOTES:**

1. BASED ON CONTROLLER CABINET TYPE IV WITH BASE DIMENSIONS OF 26" x 44" (660mm x 1118mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
2. BASED ON UNINTERRUPTIBLE POWER SUPPLY CABINET WITH BASE DIMENSIONS OF 16" x 25" (406mm x 635mm). ADJUST PLATFORM SIZE TO FIT CABINET BASE DIMENSIONS BEING SUPPLIED.
3. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV.
4. PLATFORM SIZE FOR CONTROLLER CABINET TYPE IV AND UNINTERRUPTIBLE POWER SUPPLY CABINET.
5. DRILLED HOLES THROUGH THE PLATFORM BASE TO MATCH THE CONTROLLER CABINET BOLT TEMPLATE. FASTEN THE CONTROLLER CABINET TO THE PLATFORM WITH CARRIAGE BOLTS, WASHERS AND NUTS.
6. FASTEN ALL SUPPORT WOOD FRAMING TO THE WOOD POSTS WITH 2 LAG SCREWS FOR EACH CONNECTION.

**TEMPORARY SIGNAL CONTROLLER  
WOOD SUPPORT PLATFORM**

CABLE SLACK LENGTH	FEET	METER
HANDHOLE	6.5	2.0
DOUBLE HANDHOLE	13.0	4.0
SIGNAL POST	2.0	0.6
MAST ARM	2.0	0.6
CONTROLLER CABINET	1.5	0.5
FIBER OPTIC AT CABINET	13.0	4.0
ELECTRIC SERVICE AT (CABINET OR SERVICE LOCATION)	1.5	0.5
GROUND CABLE (SIGNAL POST, MAST ARM, CABINET)	1.5	0.5
GROUND CABLE (BETWEEN FRAME AND COVER)	5.0	1.6

**CABLE SLACK**

VERTICAL CABLE LENGTH	FEET	METER
MAST ARM POLE ( MAST ARM MOUNTED SIGNAL HEAD) (L = MAST ARM LENGTH - DISTANCE TO SIGNAL HEAD FROM END OF ARM)	20.0+L	6.0+L
BRACKET MOUNTED (MAST ARM POLE OR SIGNAL POLE)	13.0	4.0
PEDESTRIAN PUSH BUTTON	6.0	2.0
SERVICE INSTALLATION POLE MOUNT TO SERVICE DROP	13.5	4.1
SERVICE INSTALLATION POLE MOUNT TO GROUND	13.5	4.1
SERVICE INSTALLATION GROUND MOUNT	6.0	2.0
FOUNDATION (SIGNAL POST, MAST ARM POLE, CONTROLLER CABINET, SERVICE-GROUND MOUNT)	3.0	1.0

**VERTICAL CABLE LENGTH**

FOUNDATION	DEPTH
TYPE A - Signal Post	4'-0" (1.2m)
TYPE C - CONTROLLER W/ UPS	4'-0" (1.2m)
TYPE D - CONTROLLER	4'-0" (1.2m)
SERVICE INSTALLATION, GROUND MOUNT, TYPE A - SQUARE	4'-0" (1.2m)

**DEPTH OF FOUNDATION**

MAST ARM LENGTH	① FOUNDATION DEPTH	FOUNDATION DIAMETER	SPIRAL DIAMETER	QUANTITY OF REBARS	SIZE OF REBARS
Less than 30' (9.1 m)	10'-0" (3.0 m)	30" (750mm)	24" (600mm)	8	6(19)
Greater than or equal to 30' (9.1 m) and less than 40' (12.2 m)	13'-6" (4.1 m)	30" (750mm)	24" (600mm)	8	6(19)
	11'-0" (3.4 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 40' (12.2 m) and less than 50' (15.2 m)	13'-0" (4.0 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 50' (15.2 m) and up to 55' (16.8 m)	15'-0" (4.6 m)	36" (900mm)	30" (750mm)	12	7(22)
Greater than or equal to 56' (16.8 m) and less than 65' (19.8 m)	21'-0" (6.4 m)	42" (1060mm)	36" (900mm)	16	8(25)
Greater than or equal to 65' (19.8 m) and up to 75' (22.9 m)	25'-0" (7.6 m)	42" (1060mm)	36" (900mm)	16	8(25)

**NOTES:**

1. These foundation depths are for sites which have cohesive soils (clayey silt, sandy clay, etc.) along the length of the shaft, with an average unconfined compressive strength (qu) > 1.0 tsf (100 kpa). This strength shall be verified by boring data prior to construction or with testing by the Engineer during foundation drilling. The Bureau of Bridges & Structures should be contacted for a revised design if other conditions are encountered.
2. Combination mast arm assemblies under 55 feet (16.8 m) shall use 36" (900 mm) diameter foundations.
3. Combination mast arm assemblies under 56 feet (16.8 m) through 75 feet (22.9 m) shall use 42" (1060 mm) diameter foundations.
4. For mast arm assemblies with dual arms refer to state standard 878001..

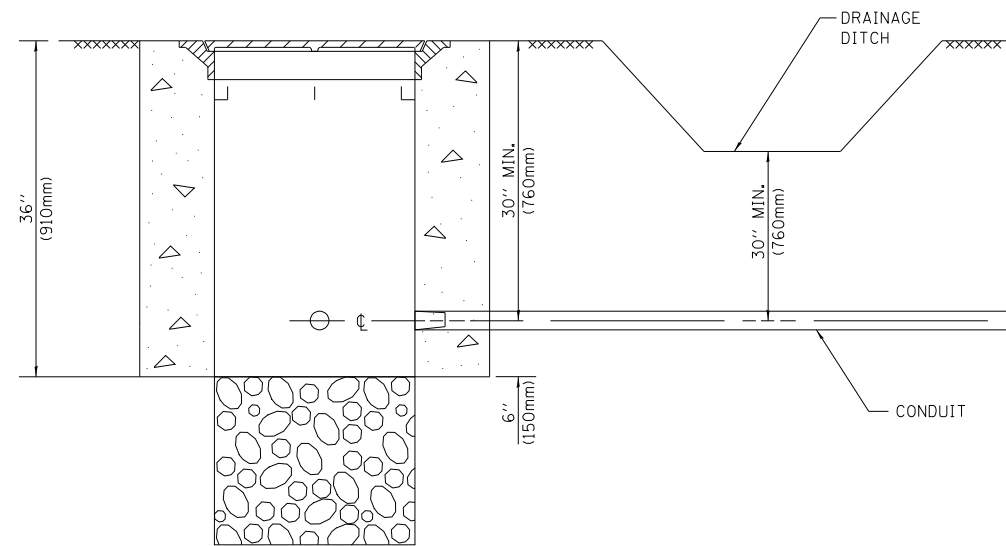
**DEPTH OF MAST ARM FOUNDATIONS, TYPE E**

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET NO. 5 OF 7 SHEETS	STA.	TO STA.

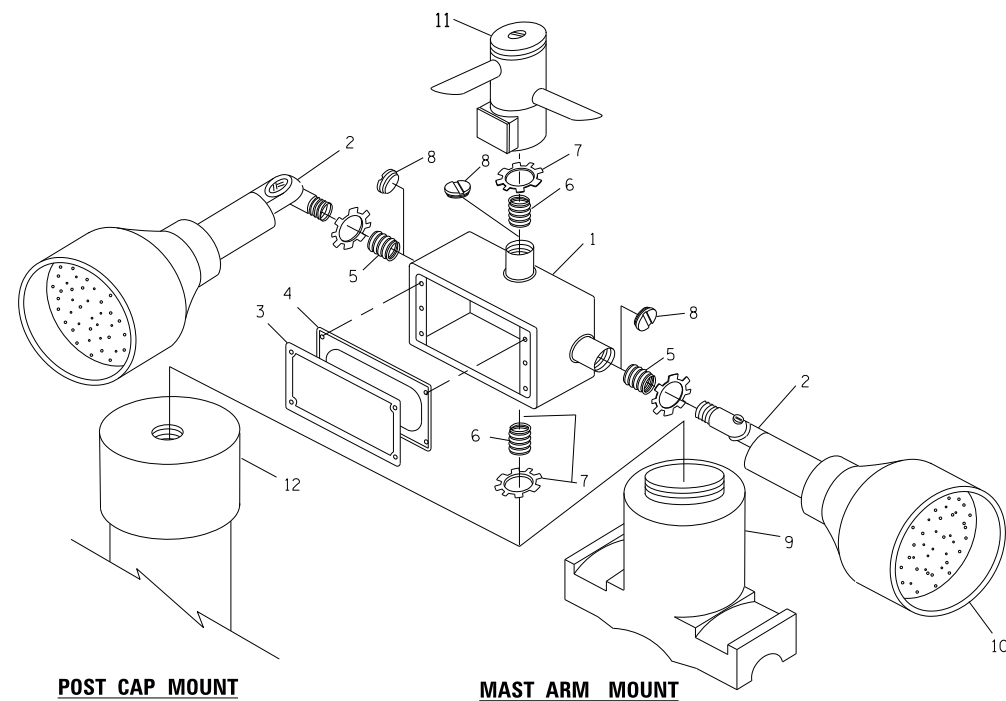
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-2)B-1	COOK	184	112
<b>TS-05</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



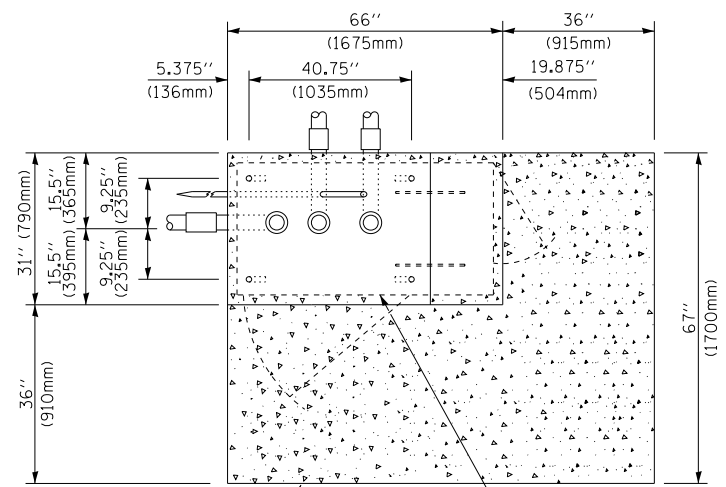
**NOTES:**

1. CONDUIT DEPTH SHALL BE A MINIMUM OF 30" (760mm) BELOW THE BOTTOM OF THE DRAINAGE DITCH OR ANY SLOPING GROUND
2. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL CONDUIT PLACED UNDER ROADWAY PAVEMENT, MULTI-USE PATHS, SIDEWALKS AND SOIL SURFACES.
3. THE MINIMUM CONDUIT DEPTH APPLIES TO ALL HANDHOLES, HEAVY DUTY HANDHOLES AND DOUBLE HANDHOLES.

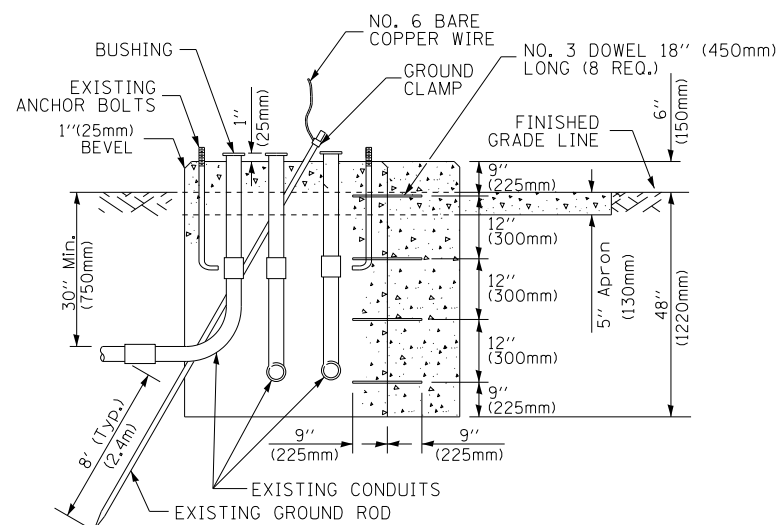
**HANDHOLE WITH MINIMUM CONDUIT DEPTH**  
(NOT TO SCALE)



**EMERGENCY VEHICLE DETECTOR WITH CONFIRMATION BEACON MOUNTING DETAIL**



**TOP VIEW**  
(NOT TO SCALE)

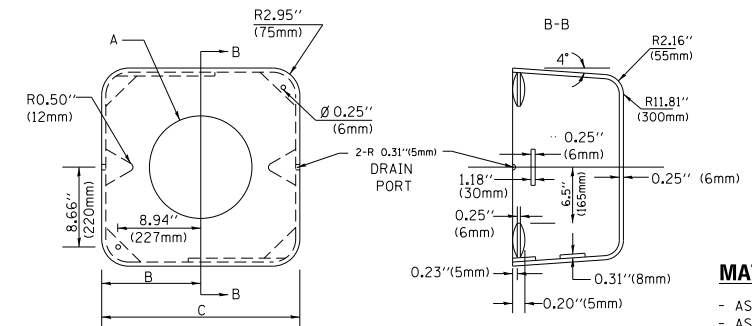


**MODIFY EXISTING TYPE "D" FOUNDATION TO TYPE "C" FOUNDATION**  
(NOT TO SCALE)

ITEM NO.	IDENTIFICATION
1	OUTLET BOX- GALV. 21 CU.IN. (0,000344 CU-M)
2	LAMP HOLDER AND COVER
3	OUTLET BOX COVER
4	RUBBER COVER GASKET
5	REDUCING BUSHING
6	3/4" (19 mm) CLOSE NIPPLE
7	3/4" (19 mm) LOCKNUT
8	3/4" (19 mm) HOLE PLUG
9	SADDLE BRACKET - GALV.
10	6 WATT PAR 38 LED FLOOD LAMP
11	DETECTOR UNIT
12	POST CAP [18 FT. (5.4 m) POST MIN.]

**NOTES:**

1. ALL ELECTRICAL ITEMS, EXCEPT ITEMS #2 AND #11 SHALL BE ALUMINUM OR GALVANIZED
2. ITEM #1- OZ/GEDNEY FSX-1-50 OR EQUIVALENT  
ITEM #2- MULBERRY CON-0-SHADE LAMP SHIELD OR EQUIVALENT  
ITEM #9- "BAND-IT" SADDLE BRACKET OR EQUIVALENT
3. WHEN POST MOUNTING IS SPECIFIED, ITEM #9 SHALL NOT BE REQUIRED. THE DETECTION UNIT SHALL BE MOUNTED DIRECTLY ON TOP OF THE CAP BY DRILLING AND TAPPING A 3/4" (19 mm) HOLE WITH PIPE THREADS. THE POST CAP SHALL EITHER BE SCREWED TO THE TOP OF THE POST OR A MINIMUM OF 3 TIGHTENING SCREWS SHALL BE REQUIRED ON EACH CAP.



**MATERIAL:**  
- ASTM A36 STEEL  
- ASTM A-123 HOT DIPPED GALVANIZED

A	B	C	HEIGHT	WEIGHT
VARIABLES	9.5" (241mm)	19" (483mm)	7" (178mm) - 12" (300mm)	53 lbs (24kg)
VARIABLES	10.75" (273mm)	21.5" (546mm)	7" (178mm) - 12" (300mm)	68 lbs (31 kg)
VARIABLES	13.0" (330mm)	26" (660mm)	7" (178mm) - 12" (300mm)	81 lbs (37 kg)
VARIABLES	18.5" (470mm)	37" (940mm)	7" (178mm) - 12" (300mm)	126 lbs (57 kg)

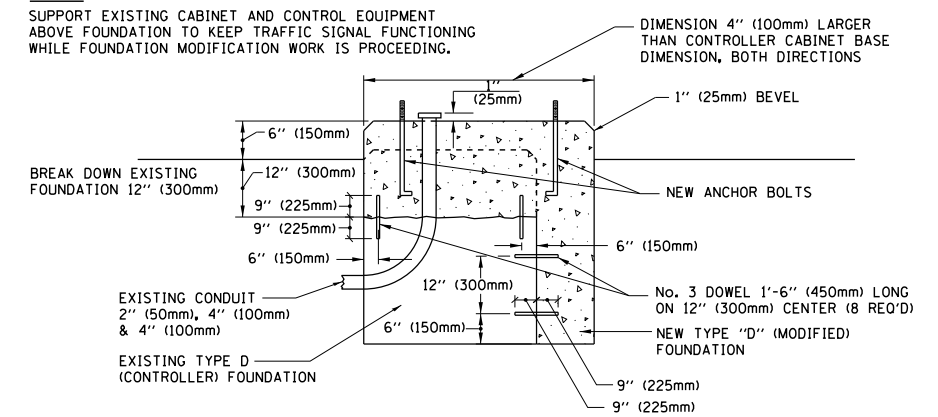
**SHROUD**

**NOTES:**

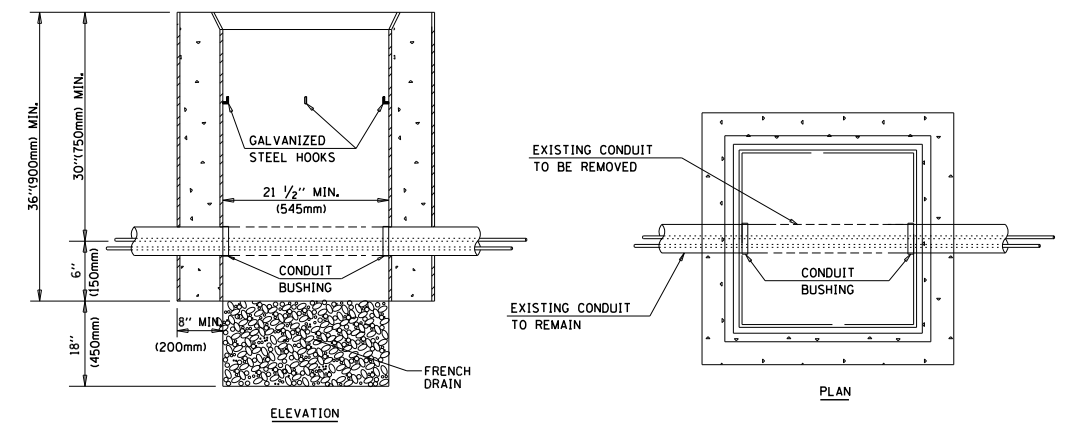
1. DIMENSION "A" IS EQUAL TO THE DIAMETER OF THE MAST ARM POLE AT THE TOP OF THE SHROUD. THE SHROUD SHALL BE TIGHT TO THE MAST ARM POLE.
2. THE SUPPLIER SHALL VERIFY THE ABOVE DIMENSIONS BASED ON MAST ARM REQUIREMENTS.
3. THE HEIGHT OF THE SHROUD SHALL COVER THE ANCHOR BOLTS, NUTS AND MAST ARM POLE BASE.

**NOTE:**

SUPPORT EXISTING CABINET AND CONTROL EQUIPMENT ABOVE FOUNDATION TO KEEP TRAFFIC SIGNAL FUNCTIONING WHILE FOUNDATION MODIFICATION WORK IS PROCEEDING.



**MODIFY EXISTING TYPE "D" FOUNDATION**



**NOTES:**

1. HANDHOLE CONSTRUCTED PER STATE STANDARD 814001.
2. REMOVAL OF THE EXISTING CONDUIT FROM THE HANDHOLE AND THE INSTALLATION OF THE CONDUIT BUSHINGS SHALL BE INCLUDED WITH THE COST OF THE HANDHOLE.

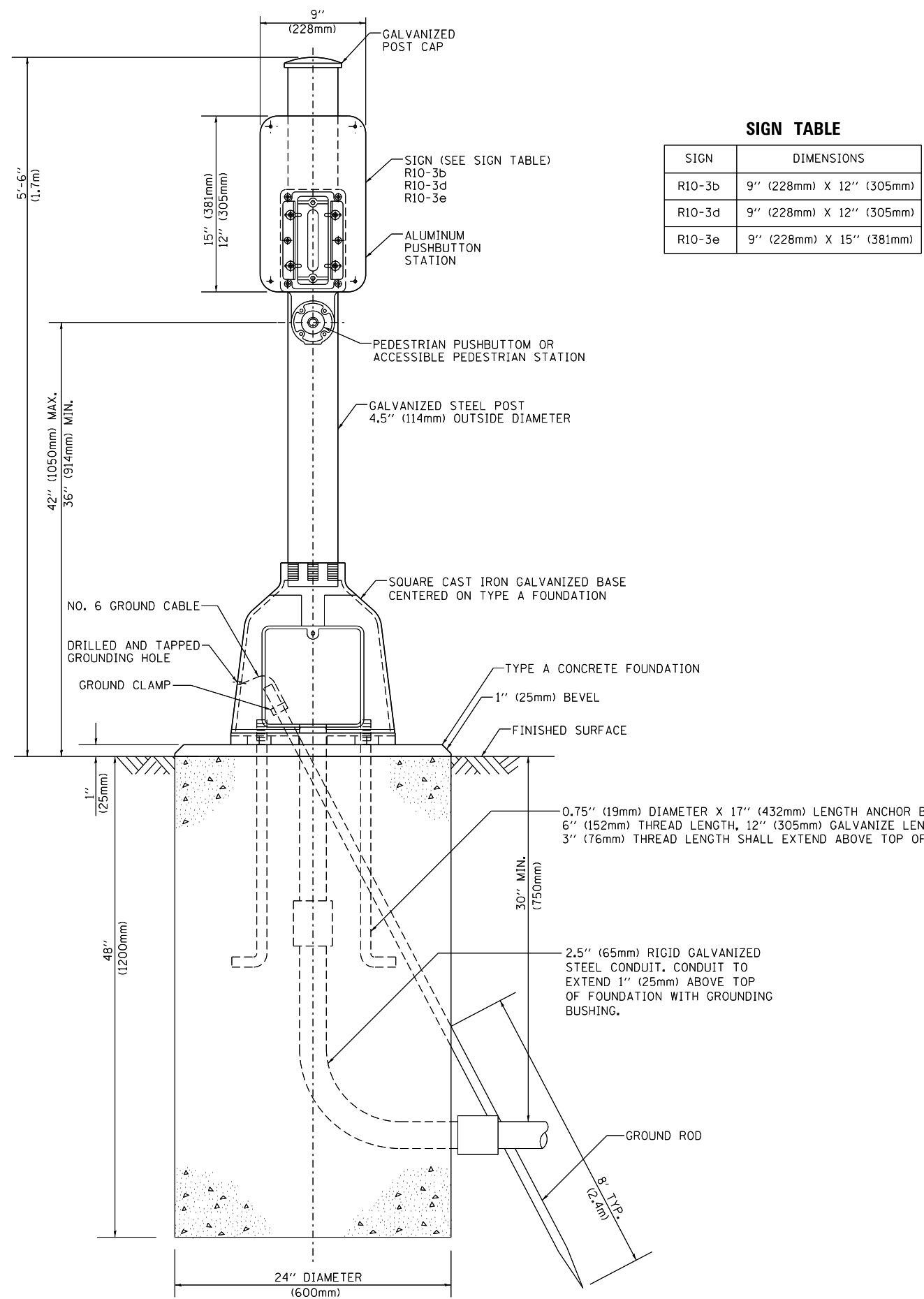
**HANDHOLE TO INTERCEPT EXISTING CONDUIT**

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	PLOT DATE = 1/13/2014	DATE - 10-28-09	REVISED -

**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

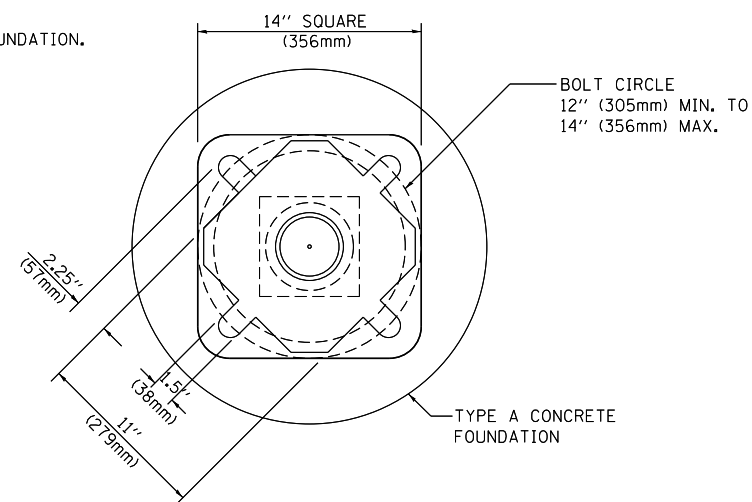
**DISTRICT ONE**  
**STANDARD TRAFFIC SIGNAL DESIGN DETAILS**  
SCALE: NONE SHEET NO. 6 OF 7 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	113
<b>TS-05</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIGN TABLE**

SIGN	DIMENSIONS
R10-3b	9" (228mm) X 12" (305mm)
R10-3d	9" (228mm) X 12" (305mm)
R10-3e	9" (228mm) X 15" (381mm)



**BOLT PATTERN**  
**PEDESTRIAN PUSH BUTTON POST, TYPE A**

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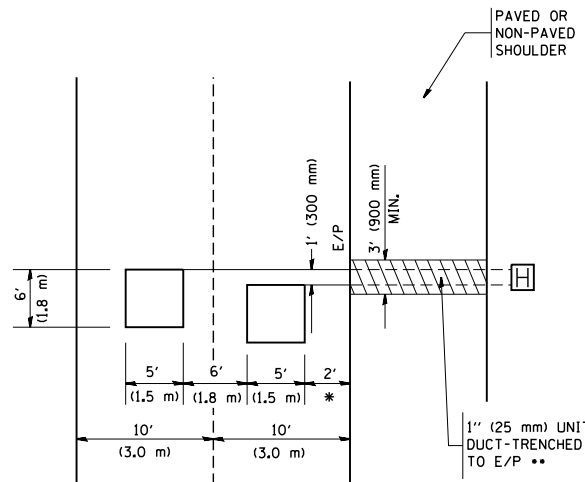
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>STANDARD TRAFFIC SIGNAL DESIGN DETAILS</b>			
SCALE: NONE	SHEET NO. 7 OF 7 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-2)B-1	COOK	184	114
<b>TS-05</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**LOOPS NEXT TO SHOULDERS**

PROVIDE A PAVEMENT REPLACEMENT NOTE WHICH SHOULD EQUAL 3' (900 mm) X WIDTH OF PAVED SHOULDER.

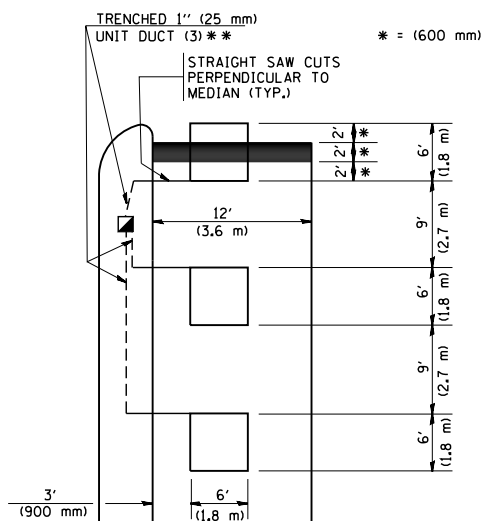


\* = (600 mm)

\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

**LEFT TURN LANES WITH MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**

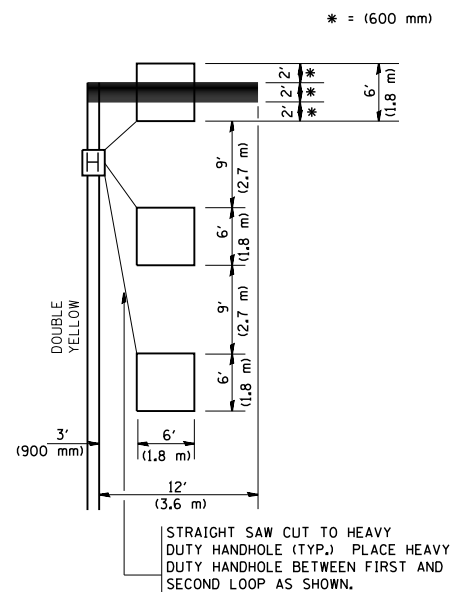
HANDHOLE LOCATION MAY VARY DEPENDING ON GEOMETRICS AND DESIGN OF TRAFFIC SIGNALS. HEAVY-DUTY HANDHOLES TO BE USED WHEN THE MEDIAN IS MOUNTABLE. REFER TO STANDARD 814001 TO ENSURE THAT HANDHOLE FITS IN MEDIAN.



\*\* UNIT DUCT IS TO BE SHOWN ON PLAN SHEETS BUT SHALL NOT BE INCLUDED IN THE PAY ITEMS.

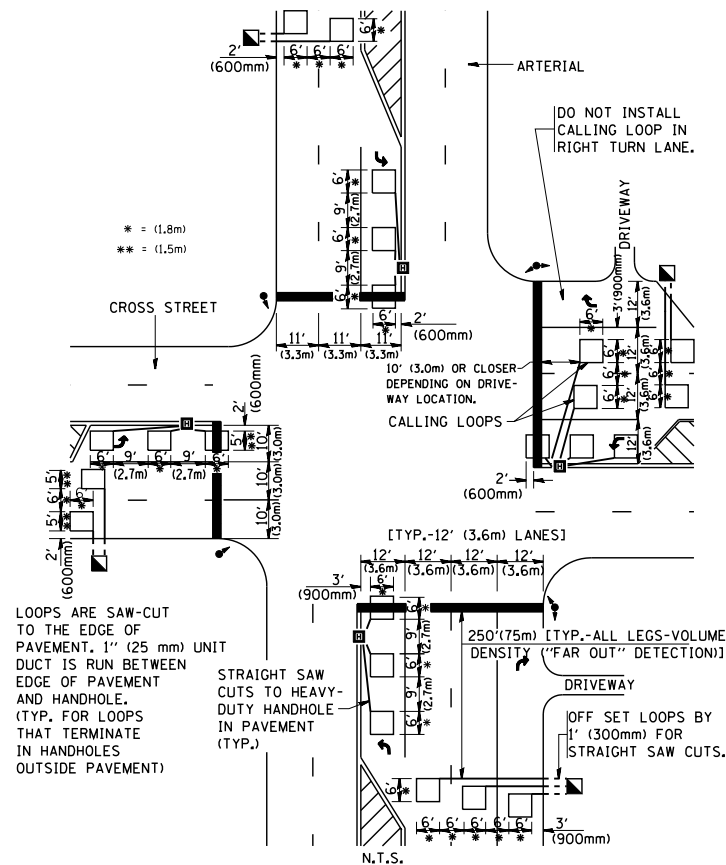
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**LEFT TURN LANES WITHOUT MEDIANS  
VOLUME DENSITY ("FAR OUT" DETECTION)  
ON SAME APPROACH  
(PROTECTED / PERMITTED LEFT TURN PHASING)**



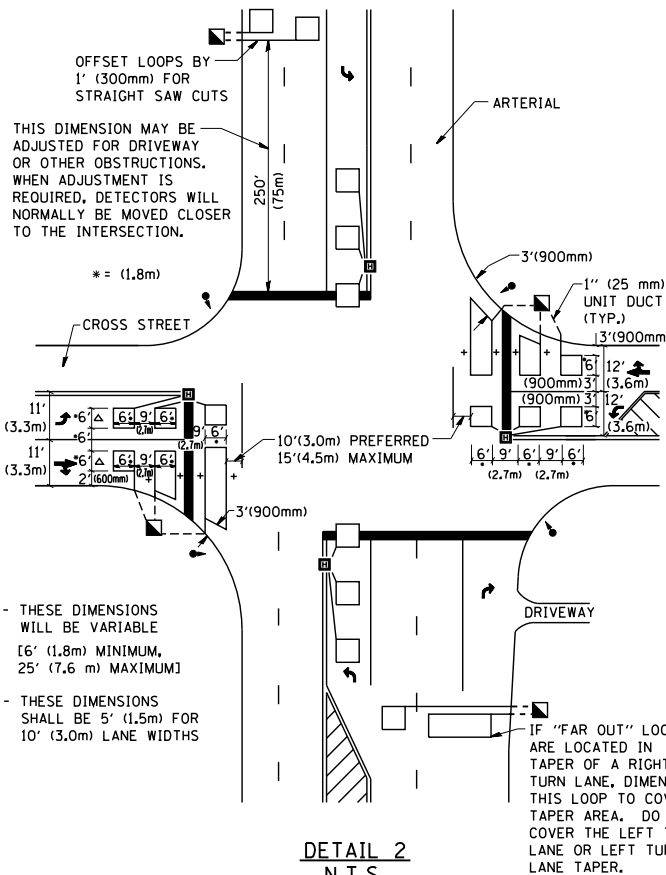
NOTE: DUAL LEFT TURNS NOT SHOWN REFER TO PLAN SHEET FOR DETECTOR LOOP REPLACEMENT

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-VOLUME DENSITY ("FAR OUT" DETECTION)**



**DETAIL 1  
N.T.S.**

**ARTERIAL-VOLUME DENSITY ("FAR OUT" DETECTION)  
CROSS STREET-NON VOLUME DENSITY ("UPTIGHT" PRESENCE DETECTION)**



**DETAIL 2  
N.T.S.**

**NOTES:**

**VEHICLES LOOP DETECTORS**

- \* ALL LEAD IN CABLE SHALL BE TWO CONDUCTOR NO. 14 TWISTED, SHIELDED.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN SAW CUT FROM THE LOOP TO THE EDGE OF PAVEMENT OR TO A HANDHOLE IN THE PAVEMENT.
- \* EACH DETECTOR LOOP SHALL HAVE ITS OWN ONE INCH (25 mm) UNIT DUCT BETWEEN THE EDGE OF PAVEMENT AND THE FIRST HANDHOLE OR JUNCTION BOX. EACH UNIT DUCT RUN SHALL BE SHOWN ON THE PLANS BY THE DESIGNER, BUT SHALL NOT BE PAID FOR SEPARATELY. THIS ITEM IS INCIDENTAL TO THE PAY ITEM FOR DETECTOR LOOPS.
- \* ONE DIMENSION OF ALL DETECTOR LOOPS SHALL BE SIX FEET (1.8 m)
- \* EACH LANE OF NON-LOCKING, PRESENCE DETECTION AND EACH LANE OF A DOUBLE LEFT TURN LANE REQUIRES A SEPARATE INDUCTIVE LOOP DETECTOR AND LEAD IN CABLE.
- \* WHEN NON-LOCKING, PRESENCE DETECTION IS USED, MORE THAN ONE LOOP PER LANE IS REQUIRED BEHIND THE STOP BAR (i.e. 1-1/2, 1-3/4, 2).
- \* WHEN SYSTEM LOOPS ARE REQUIRED ON AN APPROACH OF AN INTERSECTION, THE LOOPS USED FOR VOLUME DENSITY AND INTERSECTION TIMING SHALL ALSO BE USED AS SYSTEM DETECTORS. EACH ONE OF THESE TYPE OF LOOPS REQUIRES A SEPARATE TWO CONDUCTOR NO. 14 TWISTED SHIELDED CABLE AND A SEPARATE INDUCTIVE LOOP DETECTOR WHEN NEW CONTROLLERS ARE UTILIZED. THE DESIGNER SHALL LABEL THESE TYPES OF LOOPS AS "INTERSECTION AND SAMPLING (SYSTEM) DETECTORS" ON THE SIGNAL LAYOUT, THE INTERCONNECT PLAN AND THE SYSTEM CABLE PLAN. WHEN AN EXISTING CONTROLLER IS UTILIZED FOR THIS TYPE OF DETECTION, THE PAY ITEM "INDUCTIVE LOOP DETECTOR WITH SYSTEM OUTPUT" SHOULD BE USED.

**PLACEMENT OF DETECTORS**

THE FOLLOWING FIGURES REPRESENT THE MOST COMMON DETECTOR LOOP LOCATIONS AND SIZES. ADJUSTMENTS WILL BE NECESSARY FOR SPECIFIC GEOMETRIC CONSIDERATIONS.

LOCATIONS AND DEMENSIONS OF DETECTOR LOOPS ARE REQUIRED ON ALL SIGNAL LAYOUT PLAN SHEETS.

"FAR OUT" DETECTION REFERS TO LOCKING, PRESENCE TYPE DETECTION LOCATED IN THRU LANES, RIGHT TURN LANES, AND RIGHT TURN LANE TAPER AREAS (IF APPLICABLE), USUALLY 250' (75 m) IN ADVANCE OF STOP BARS. "UPTIGHT" DETECTION REFERS TO NON-LOCKING PRESENCE TYPE DETECTION LOCATED IN ALL LANES AND 10'-15' (3.0 m-4.5 m) BEHIND THE CROSSING STREET'S EDGE OF PAVEMENT EXTENDED.

**NOTE:**

ALL DETAILS AND NOTES SHOWN ARE FROM THE I.D.O.T. DISTRICT 1 TRAFFIC SIGNAL DESIGN GUIDELINES DATED JANUARY 1995

THIS DRAWING HAS BEEN PREPARED TO ASSIST THE RESIDENT ENGINEER FOR ALL ROADWAY RESURFACING OR S.M.A.R.T. PROJECTS WHERE THE DIMENSIONS ARE NOT SHOWN ON THE PLANS AND THE FINAL LOCATIONS FOR CROSSWALKS OR STOP BARS ARE NOT DETERMINED.

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PLOT DATE = 1/4/2008

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CHECKED - R.K.F.  
DATE -

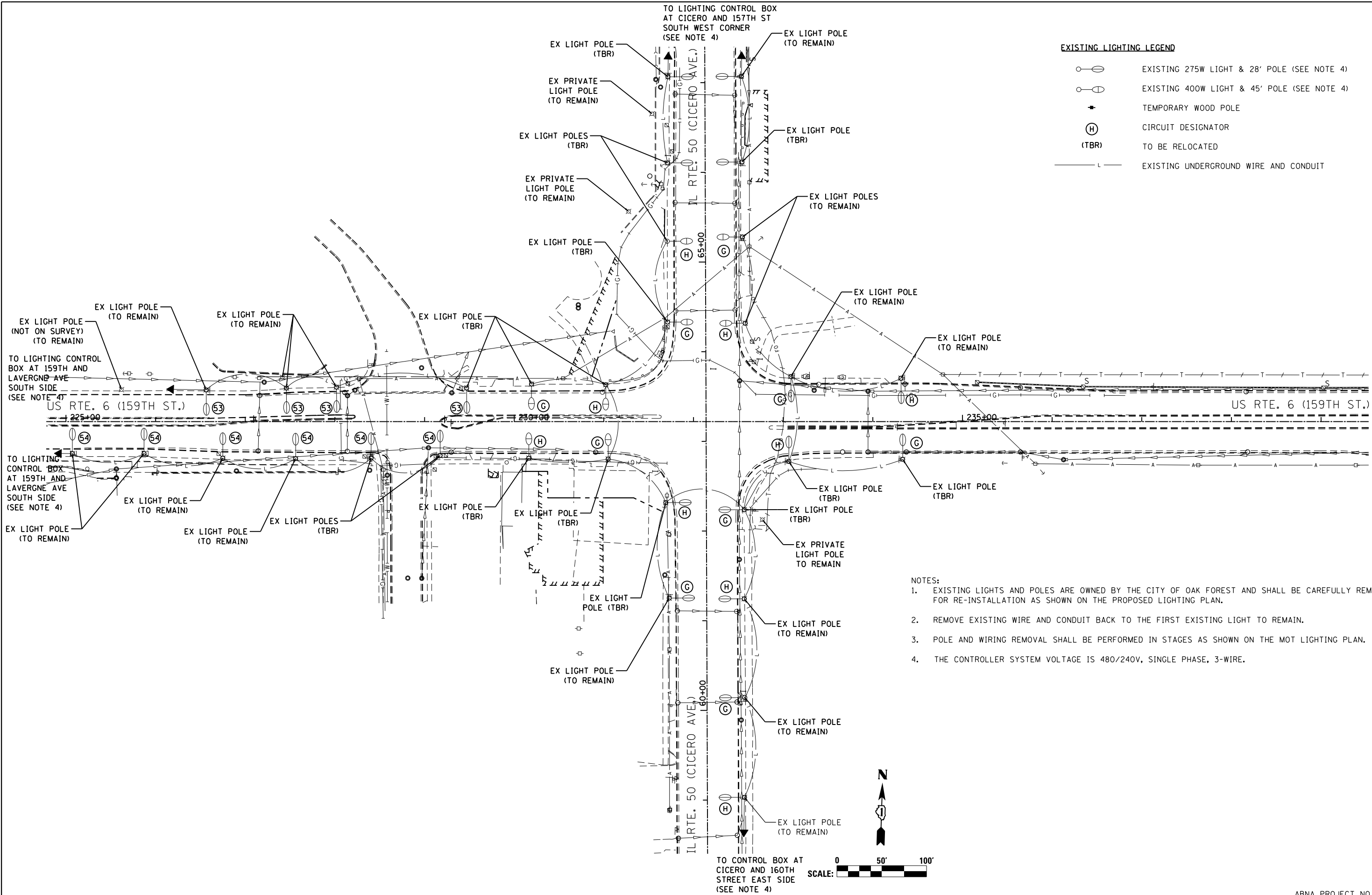
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DISTRICT 1 - DETECTOR LOOP INSTALLATION  
DETAILS FOR ROADWAY RESURFACING**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	115
<b>TS-07</b>		<b>CONTRACT NO. 60K73</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**EXISTING LIGHTING LEGEND**

	EXISTING 275W LIGHT & 28' POLE (SEE NOTE 4)
	EXISTING 400W LIGHT & 45' POLE (SEE NOTE 4)
	TEMPORARY WOOD POLE
	CIRCUIT DESIGNATOR
	TO BE RELOCATED
	EXISTING UNDERGROUND WIRE AND CONDUIT

- NOTES:
- EXISTING LIGHTS AND POLES ARE OWNED BY THE CITY OF OAK FOREST AND SHALL BE CAREFULLY REMOVED FOR RE-INSTALLATION AS SHOWN ON THE PROPOSED LIGHTING PLAN.
  - REMOVE EXISTING WIRE AND CONDUIT BACK TO THE FIRST EXISTING LIGHT TO REMAIN.
  - POLE AND WIRING REMOVAL SHALL BE PERFORMED IN STAGES AS SHOWN ON THE MOT LIGHTING PLAN.
  - THE CONTROLLER SYSTEM VOLTAGE IS 480/240V, SINGLE PHASE, 3-WIRE.

FILE NAME = J:\2014\6066\Cadd\Design\160K73-shr-light-exist.dgn	USER NAME = tpeolich	DESIGNED - FPE	REVISED -
		DRAWN - SCR	REVISED TNS
		CHECKED - JON LUER	REVISED -
		DATE - 7-19-17	REVISED -
Default	PLOT DATE = 7/19/2017		

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**EXISTING LIGHTING PLAN**

SCALE: 1" = 50'    SHEET 1 OF 6 SHEETS    STA.    TO STA.

F.A.P. NO. 0351		SECTION (537 & 3277-Z/B-1)	COUNTY COOK	TOTAL SHEETS 184	SHEET NO. 116
CONTRACT NO. 60K73					
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

ABNA PROJECT NO. 14-6066



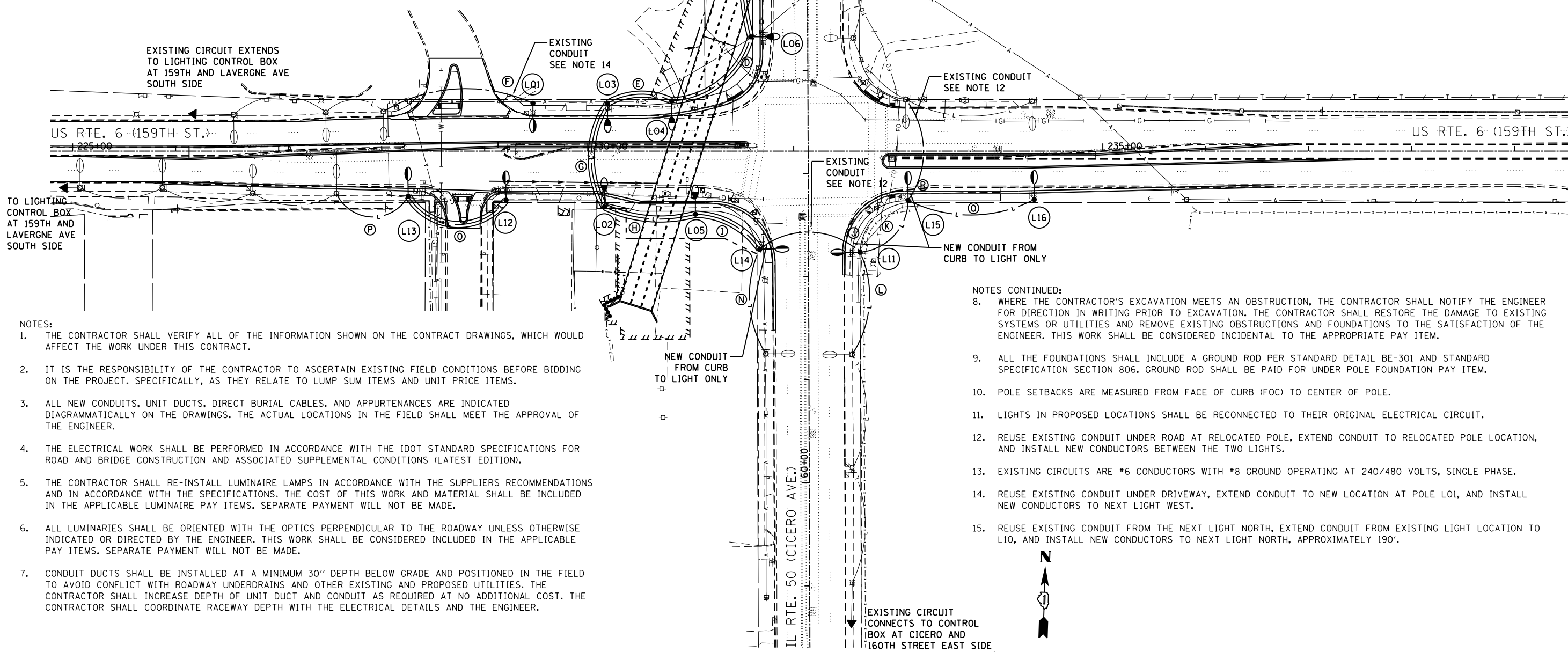
PROPOSED POLE LOCATIONS		
POLE NO.	STATION	OFFSET
L01	229+46.87	12.50' FOC LT
L02	230+16.21	12.50' FOC RT
L03	230+19.33	9.50' FOC LT
L04	230+81.53	12.50' FOC LT
L05	231+04.78	9.50' FOC RT
L06	64+33.16	9.50' FOC LT
L07	65+61.48	9.50' FOC LT
L08	65+90.81	7.25' FOC RT
L09	66+29.67	9.50' FOC LT
L10	67+06.62	9.50' FOC LT
L11	62+23.67	15.50' FOC RT
L12	229+20.77	6.75' FOC RT
L13	228+25.76	5.50' FOC RT
L14	62+27.04	10.50' FOC LT
L15	233+11.00	7.00' FOC RT
L16	234+33.47	6.50' FOC RT

UNDERGROUND CONDUIT			
CONDUIT	LENGTH	TYPE	DIA.
A	6'	CABLE IN RGS	3"
B	80'	UD IN RGS	3"
C	130'	UD IN RGS	3"
D	105'	UD IN RGS	3"
E	65'	UD IN RGS	3"
F	155'	CABLE IN RGS	3"
G	106'	UD IN RGS	3"
H	90'	UD IN RGS	3"
I	76'	UD IN RGS	3"
J	15'	CABLE IN RGS	3"
K	80'	UD	
L	105'	UD	
M	120'	UD IN RGS	3"
N	110'	UD	
O	105'	UD IN RGS	3"
P	80'	UD	
Q	135'	UD	
R	15'	CABLE IN RGS	3"

UD - UNIT DUCT

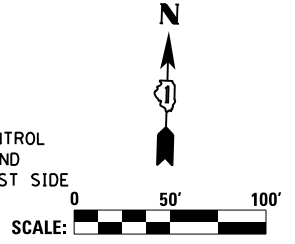
**LIGHTING LEGEND**

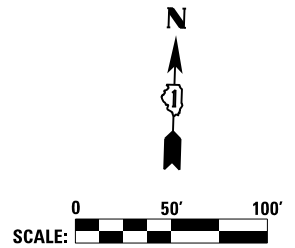
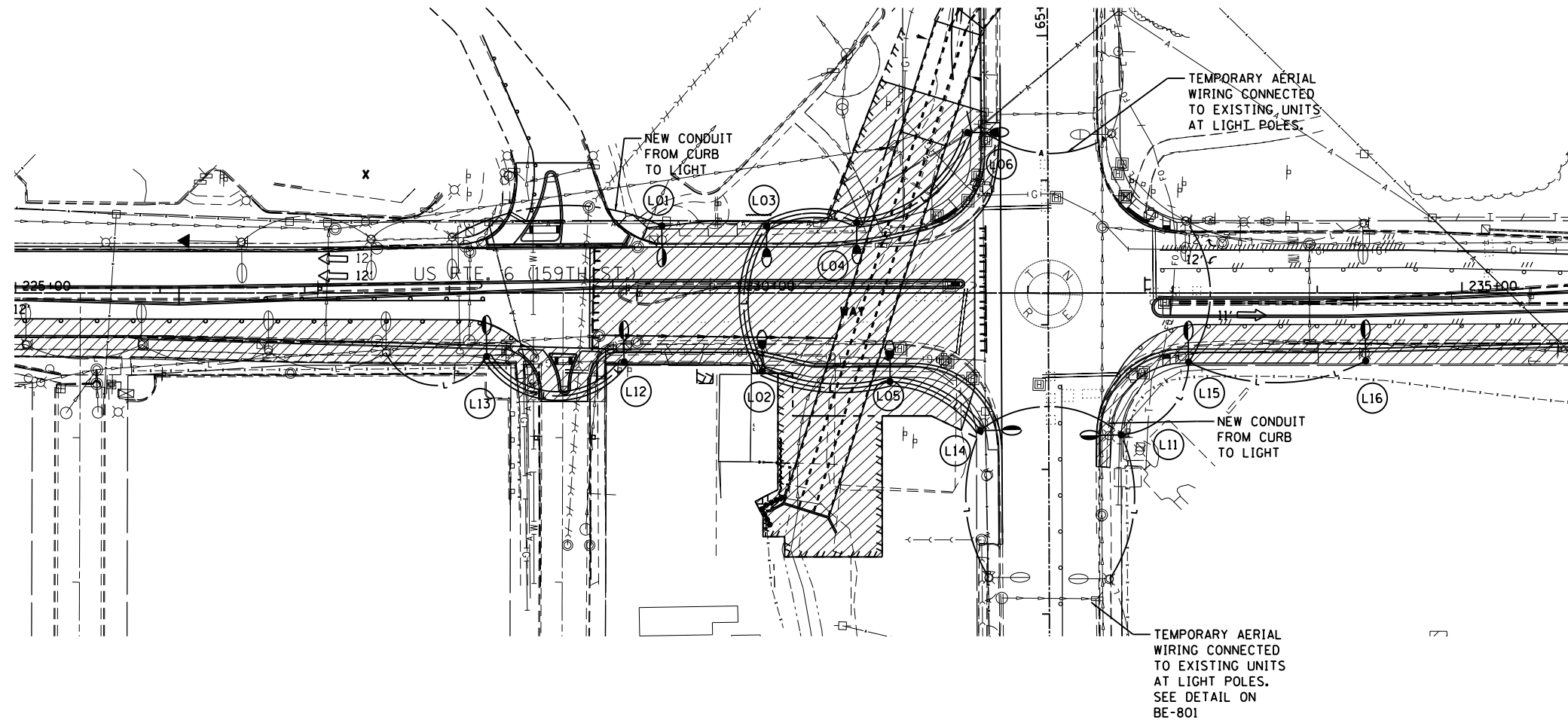
- PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE
- PROPOSED ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE), 3 -1/C #6, 1 -1/C #6 GROUND
- PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE IN 3" GALVANIZED STEEL CONDUIT/CASING
- EXISTING 275W LIGHT & 28' POLE
- EXISTING 400W LIGHT & 45' POLE
- RELOCATED LIGHT & POLE UNIT 28' POLE 11 1/2" BOLT CIRCLE 8' M.A., 275W, HPS LUMINAIRE, BASE BREAKAWAY, UNLESS OTHERWISE INDICATED. MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
- RELOCATED LIGHT & POLE UNIT 45' POLE 15" BOLT CIRCLE 15' M.A., 400W, HPS LUMINAIRE, BASE BREAKAWAY, UNLESS OTHERWISE INDICATE, MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
- EXISTING UNDERGROUND UNIT DUCT OR CABLE IN CONDUIT



- NOTES:**
- THE CONTRACTOR SHALL VERIFY ALL OF THE INFORMATION SHOWN ON THE CONTRACT DRAWINGS, WHICH WOULD AFFECT THE WORK UNDER THIS CONTRACT.
  - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ASCERTAIN EXISTING FIELD CONDITIONS BEFORE BIDDING ON THE PROJECT. SPECIFICALLY, AS THEY RELATE TO LUMP SUM ITEMS AND UNIT PRICE ITEMS.
  - ALL NEW CONDUITS, UNIT DUCTS, DIRECT BURIAL CABLES, AND APPURTENANCES ARE INDICATED DIAGRAMMATICALLY ON THE DRAWINGS. THE ACTUAL LOCATIONS IN THE FIELD SHALL MEET THE APPROVAL OF THE ENGINEER.
  - THE ELECTRICAL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND ASSOCIATED SUPPLEMENTAL CONDITIONS (LATEST EDITION).
  - THE CONTRACTOR SHALL RE-INSTALL LUMINAIRE LAMPS IN ACCORDANCE WITH THE SUPPLIERS RECOMMENDATIONS AND IN ACCORDANCE WITH THE SPECIFICATIONS. THE COST OF THIS WORK AND MATERIAL SHALL BE INCLUDED IN THE APPLICABLE LUMINAIRE PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
  - ALL LUMINARIES SHALL BE ORIENTED WITH THE OPTICS PERPENDICULAR TO THE ROADWAY UNLESS OTHERWISE INDICATED OR DIRECTED BY THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCLUDED IN THE APPLICABLE PAY ITEMS. SEPARATE PAYMENT WILL NOT BE MADE.
  - CONDUIT DUCTS SHALL BE INSTALLED AT A MINIMUM 30" DEPTH BELOW GRADE AND POSITIONED IN THE FIELD TO AVOID CONFLICT WITH ROADWAY UNDERDRAINS AND OTHER EXISTING AND PROPOSED UTILITIES. THE CONTRACTOR SHALL INCREASE DEPTH OF UNIT DUCT AND CONDUIT AS REQUIRED AS REQUIRED AT NO ADDITIONAL COST. THE CONTRACTOR SHALL COORDINATE RACEWAY DEPTH WITH THE ELECTRICAL DETAILS AND THE ENGINEER.

- NOTES CONTINUED:**
- WHERE THE CONTRACTOR'S EXCAVATION MEETS AN OBSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE ENGINEER FOR DIRECTION IN WRITING PRIOR TO EXCAVATION. THE CONTRACTOR SHALL RESTORE THE DAMAGE TO EXISTING SYSTEMS OR UTILITIES AND REMOVE EXISTING OBSTRUCTIONS AND FOUNDATIONS TO THE SATISFACTION OF THE ENGINEER. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE APPROPRIATE PAY ITEM.
  - ALL THE FOUNDATIONS SHALL INCLUDE A GROUND ROD PER STANDARD DETAIL BE-301 AND STANDARD SPECIFICATION SECTION 806. GROUND ROD SHALL BE PAID FOR UNDER POLE FOUNDATION PAY ITEM.
  - POLE SETBACKS ARE MEASURED FROM FACE OF CURB (FOC) TO CENTER OF POLE.
  - LIGHTS IN PROPOSED LOCATIONS SHALL BE RECONNECTED TO THEIR ORIGINAL ELECTRICAL CIRCUIT.
  - REUSE EXISTING CONDUIT UNDER ROAD AT RELOCATED POLE, EXTEND CONDUIT TO RELOCATED POLE LOCATION, AND INSTALL NEW CONDUCTORS BETWEEN THE TWO LIGHTS.
  - EXISTING CIRCUITS ARE #6 CONDUCTORS WITH #8 GROUND OPERATING AT 240/480 VOLTS, SINGLE PHASE.
  - REUSE EXISTING CONDUIT UNDER DRIVEWAY, EXTEND CONDUIT TO NEW LOCATION AT POLE L01, AND INSTALL NEW CONDUCTORS TO NEXT LIGHT WEST.
  - REUSE EXISTING CONDUIT FROM THE NEXT LIGHT NORTH, EXTEND CONDUIT FROM EXISTING LIGHT LOCATION TO L10, AND INSTALL NEW CONDUCTORS TO NEXT LIGHT NORTH, APPROXIMATELY 190'.





LIGHTING - STAGE I

LIGHTING LEGEND

- PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE
- PROPOSED ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE), 3 -1/C #6, 1 -1/C #6 GROUND
- PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE IN 3" GALVANIZED STEEL CONDUIT/CASING
- EXISTING LIGHT & POLE
- EXISTING 275W LIGHT & 28' POLE
- EXISTING 400W LIGHT & 45' POLE
- RELOCATED LIGHT & POLE 28' POLE 11 1/2" BOLT CIRCLE 8' M.A., 275W, HPS LUMINAIRE, BREAKAWAY BASE, UNLESS OTHERWISE INDICATED, MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
- RELOCATED LIGHT & POLE 45' POLE 15" BOLT CIRCLE 15' M.A., 400W, HPS LUMINAIRE, BREAKAWAY BASE, UNLESS OTHERWISE INDICATE, MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
- TEMPORARY AERIAL LIGHTING CIRCUIT 3-1/C #6 WITH MESSENGER WIRE ON 30' WOOD POLE, MINIMUM 20' ABOVE ROAD.
- WORK ZONE

ELECTRICAL CONNECTION AND RELOCATION SEQUENCE

- STAGE I:
1. INSTALL TEMPORARY WIRING ACROSS CICERO AVENUE USING 30' WOOD POLES INSTALLED PER BE-801. INSTALL 3-1/C#6 WITH MESSENGER WIRE AT 20 FEET MINIMUM ABOVE THE ROADWAY SURFACE.
  2. CONNECT THE TEMPORARY WIRING TO THE CIRCUIT FEEDING POLE LO6 ON THE WEST SIDE AND CONNECT TO THE LIGHTING CIRCUIT ON THE EAST SIDE AT THE EXISTING POLE ON THE EAST SIDE.
  3. DISCONNECT CIRCUITS FEEDING LO1 AT NEXT POLE WEST, L02 THRU L06 AT THE EXISTING POLE L14, L12 AND L13 AT NEXT POLE WEST.
  4. REMOVE POLES, L01 THRU L06 AND L11 THRU L16 FOUNDATIONS, AND WIRING.
  5. INSTALL RELOCATED POLES AND LIGHTS L01 THRU L06 AND L11 THRU L16 ON NEW FOUNDATIONS.
  6. INSTALL NEW WIRING FOR THE RELOCATED POLES.
  7. CONNECT CIRCUITS TO L02 THRU L06 AT POLE L14.
  8. CONNECT CIRCUIT FOR L01 AT THE NEXT POLE WEST.
  9. CONNECT CIRCUIT FOR L12 AND L13 AT NEXT POLE WEST.
  10. CONNECT CIRCUIT FOR L14 AND L11 AT NEXT POLE SOUTH.

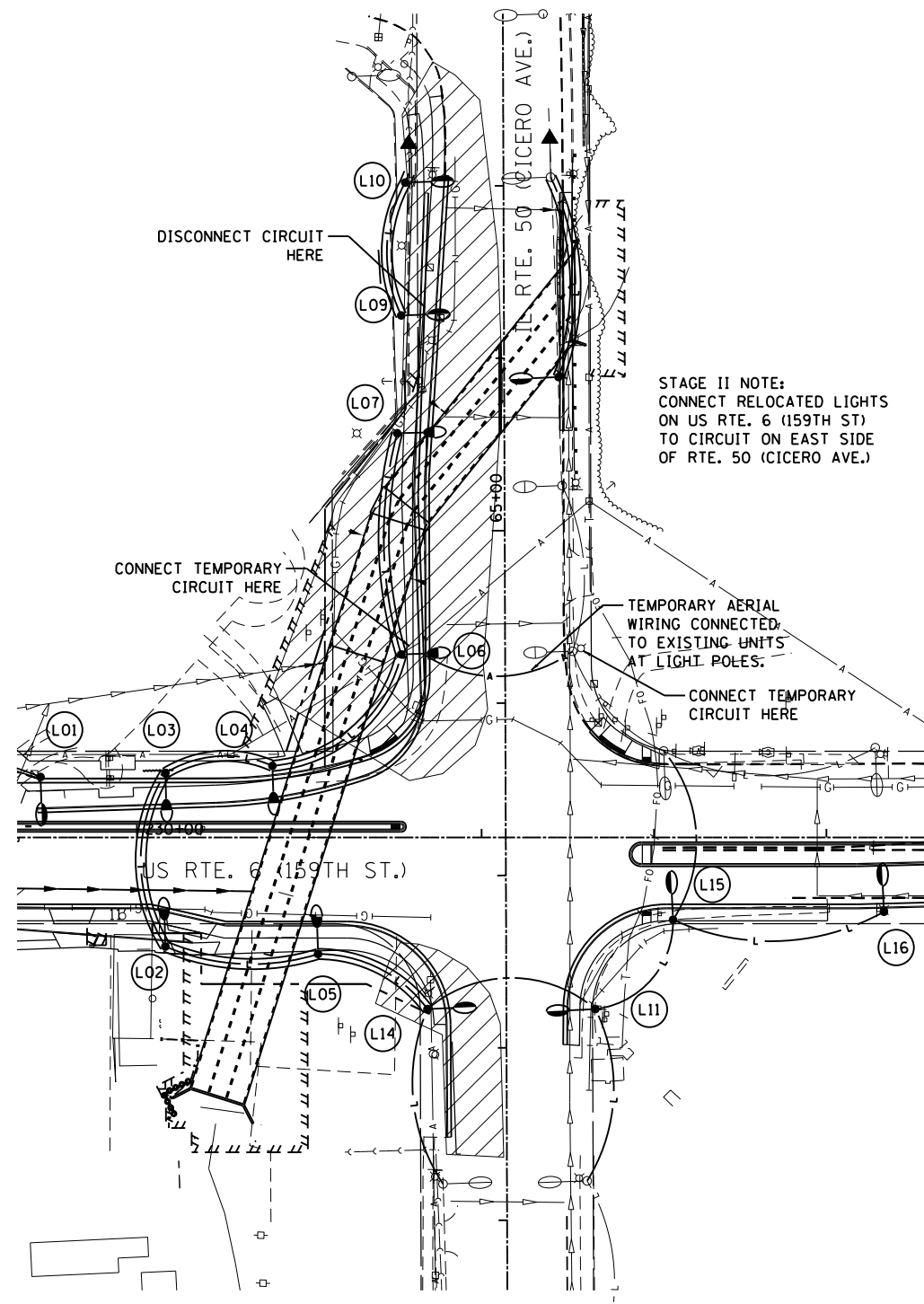
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**MOT LIGHTING PLAN**

SCALE: 1" = 50'    SHEET 3 OF 6 SHEETS    STA.    TO STA.

ABNA PROJECT NO. 14-6066		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		0351	(537 & 3277-Z/B-1)	COOK	184	118
		CONTRACT NO. 60K73				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT						

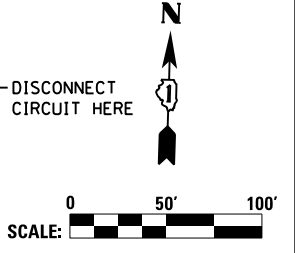
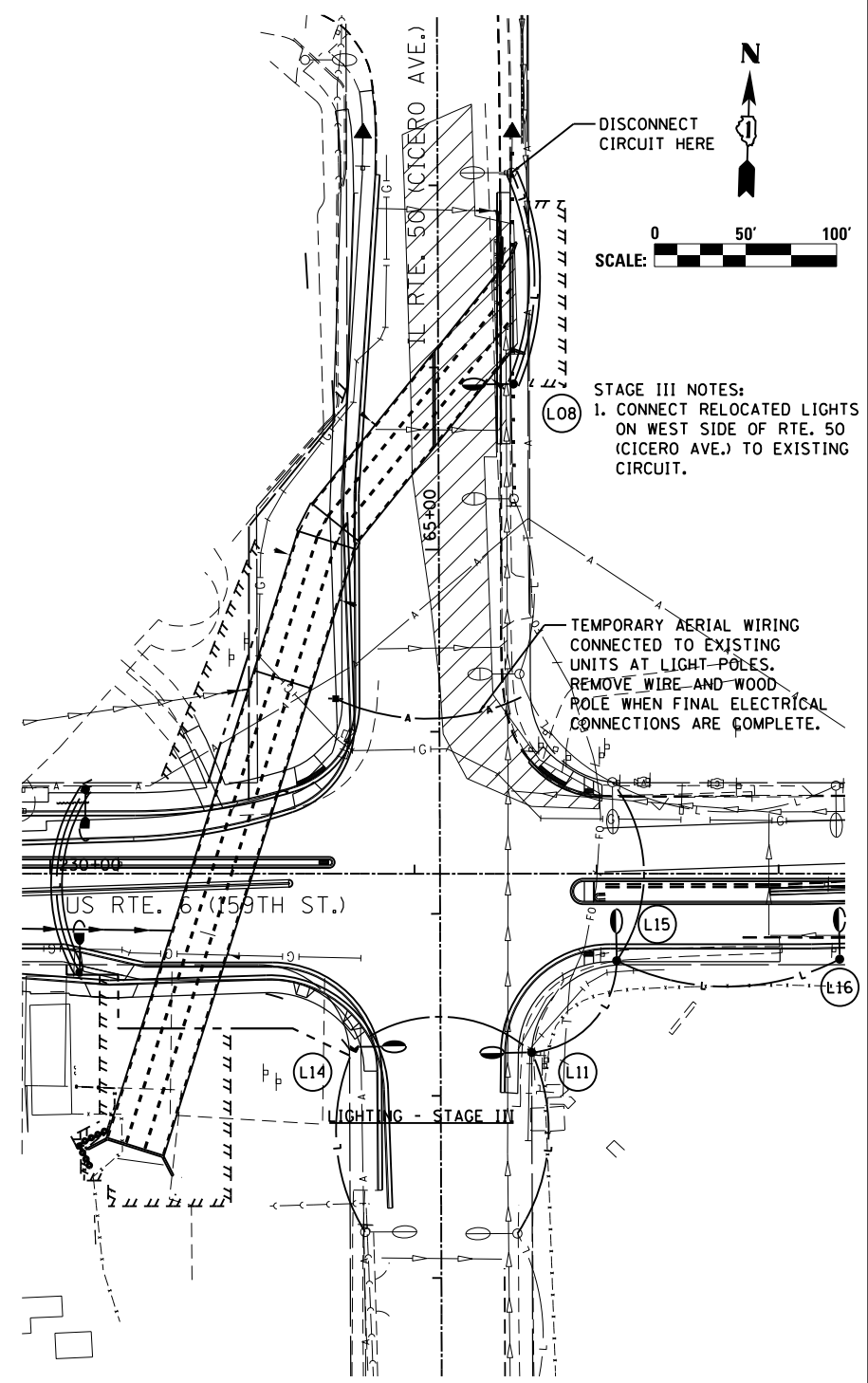


STAGE II NOTE:  
CONNECT RELOCATED LIGHTS ON US RTE. 6 (159TH ST) TO CIRCUIT ON EAST SIDE OF RTE. 50 (CICERO AVE.)

- LIGHTING LEGEND**
- L — PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE
  - - - PROPOSED ELECTRIC CABLE IN CONDUIT, 600V, (XLP-TYPE USE), 3-1/C #6, 1-1/C #6 GROUND
  - L — PROPOSED UNIT DUCT, 600V, 3-1/C #6, 1/C #8 GROUND, (XLP-TYPE USE), 1-1/4" DIA. POLYETHYLENE IN 3" GALVANIZED STEEL CONDUIT/CASING
  - EXISTING LIGHT & POLE
  - EXISTING 275W LIGHT & 28' POLE
  - EXISTING 400W LIGHT & 45' POLE
  - RELOCATED LIGHT & POLE 28' POLE 11 1/2" BOLT CIRCLE 8' M.A., 275W, HPS LUMINAIRE, BREAKAWAY BASE, UNLESS OTHERWISE INDICATED. MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
  - RELOCATED LIGHT & POLE 45' POLE 15" BOLT CIRCLE 15' M.A., 400W, HPS LUMINAIRE, BREAKAWAY BASE, UNLESS OTHERWISE INDICATE, MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
  - TEMPORARY AERIAL LIGHTING CIRCUIT 3-1/C #6 WITH MESSENGER WIRE ON 30' WOOD POLE, MINIMUM 20' ABOVE ROAD.
  - ▨ WORK ZONE

**ELECTRICAL CONNECTION AND RELOCATION SEQUENCE**

- STAGE II:
- DISCONNECT THE CIRCUITS FEEDING THE EXISTING POLES L07, L09 AND L10 TO BE RELOCATED.
  - AFTER THE POLES ARE REINSTALLED WITH NEW WIRING, DISCONNECT THE TEMPORARY WIRING, AND RECONNECT THE WIRING FOR POLES L01 THRU L05 AND POLES L06, L07, L09, AND L10 TO THE RELOCATED CIRCUITS.
- STAGE III
- DISCONNECT THE CIRCUITS FEEDING POLE L08 TO BE RELOCATED ON THE EAST SIDE OF CICERO AND RECONNECT THE TEMPORARY WIRING AT POLE L06 TO PROVIDE POWER FOR THE LIGHTING SOUTH OF THE WORK AREA ON THE EAST SIDE CICERO.
  - AFTER THE RELOCATED POLES AND CIRCUITS ARE INSTALLED, REMOVE THE TEMPORARY WIRING AND POLES, AND RECONNECT THE NEW WIRING TO THE EXISTING CIRCUITS.



STAGE III NOTES:  
1. CONNECT RELOCATED LIGHTS ON WEST SIDE OF RTE. 50 (CICERO AVE.) TO EXISTING CIRCUIT.

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



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

**MOT LIGHTING PLAN**

SCALE: 1" = 50' SHEET 4 OF 6 SHEETS STA. TO STA.

ABNA PROJECT NO. 14-6066				
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0351	(537 & 3277-Z/B-1)	COOK	184	119
CONTRACT NO. 60K73				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

TO CITY OF OAK FOREST OWNED  
LIGHTING CONTROL BOX  
AT CICERO AND 157TH ST  
SOUTH WEST CORNER

- LIGHTING LEGEND**
-  EXISTING 275W LIGHT & 28' POLE
  -  EXISTING 400W LIGHT & 45' POLE
  -  (H) CIRCUIT DESIGNATOR
  -  L UNDERGROUND WIRING

TO CITY OF OAK FOREST OWNED  
LIGHTING CONTROL BOX  
AT 159TH AND LAVERGNE AVE  
SOUTH SIDE

US RTE. 6 (159TH ST.)  
225+00

230+00

235+00

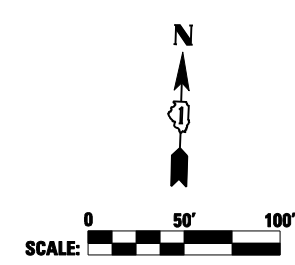
US RTE. 6 (159TH ST.)

IL RTE. 50 (CICERO AVE.)

IL RTE. 50 (CICERO AVE.)

TO CITY OF OAK FOREST OWNED  
CONTROL BOX AT  
CICERO AND 160TH  
STREET EAST SIDE

TO CITY OF OAK FOREST OWNED  
CONTROL BOX  
AT 159TH AND  
LAVERGNE AVE  
SOUTH SIDE



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**








**EXISTING LIGHTING ONE-LINE DIAGRAM**

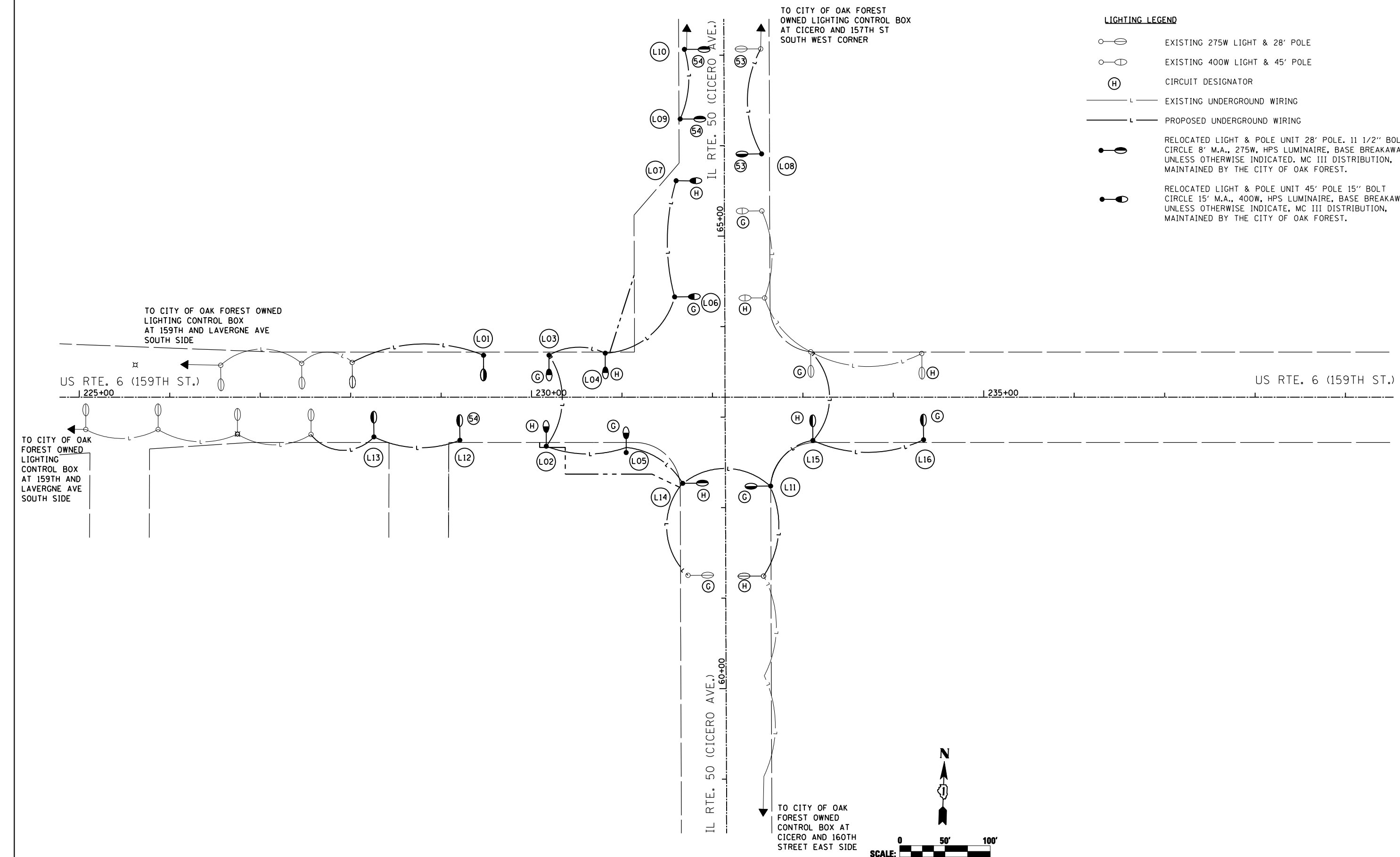
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F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0351		(537 & 3277-Z)B-1	COOK	184	120
CONTRACT NO. 60K73				ABNA PROJECT NO. 14-6066	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					

TO CITY OF OAK FOREST OWNED LIGHTING CONTROL BOX AT CICERO AND 157TH ST SOUTH WEST CORNER

**LIGHTING LEGEND**

-  EXISTING 275W LIGHT & 28' POLE
-  EXISTING 400W LIGHT & 45' POLE
-  CIRCUIT DESIGNATOR
-  EXISTING UNDERGROUND WIRING
-  PROPOSED UNDERGROUND WIRING
-  RELOCATED LIGHT & POLE UNIT 28' POLE. 11 1/2" BOLT CIRCLE 8' M.A., 275W, HPS LUMINAIRE, BASE BREAKAWAY, UNLESS OTHERWISE INDICATED. MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.
-  RELOCATED LIGHT & POLE UNIT 45' POLE 15" BOLT CIRCLE 15' M.A., 400W, HPS LUMINAIRE, BASE BREAKAWAY, UNLESS OTHERWISE INDICATE, MC III DISTRIBUTION, MAINTAINED BY THE CITY OF OAK FOREST.



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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

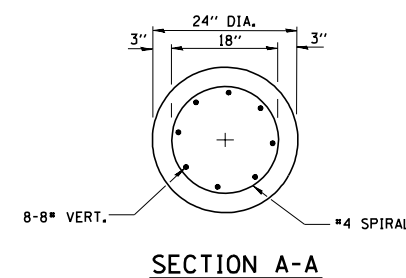
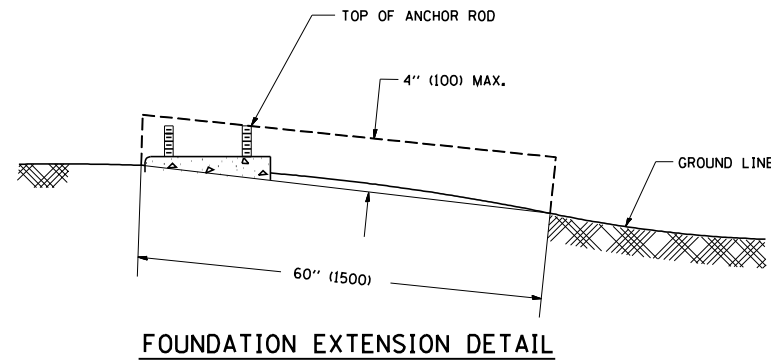
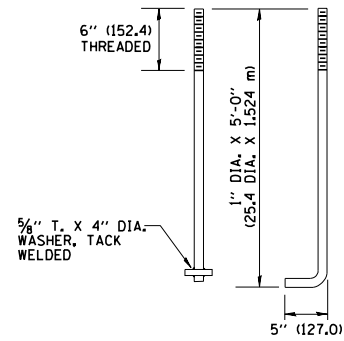
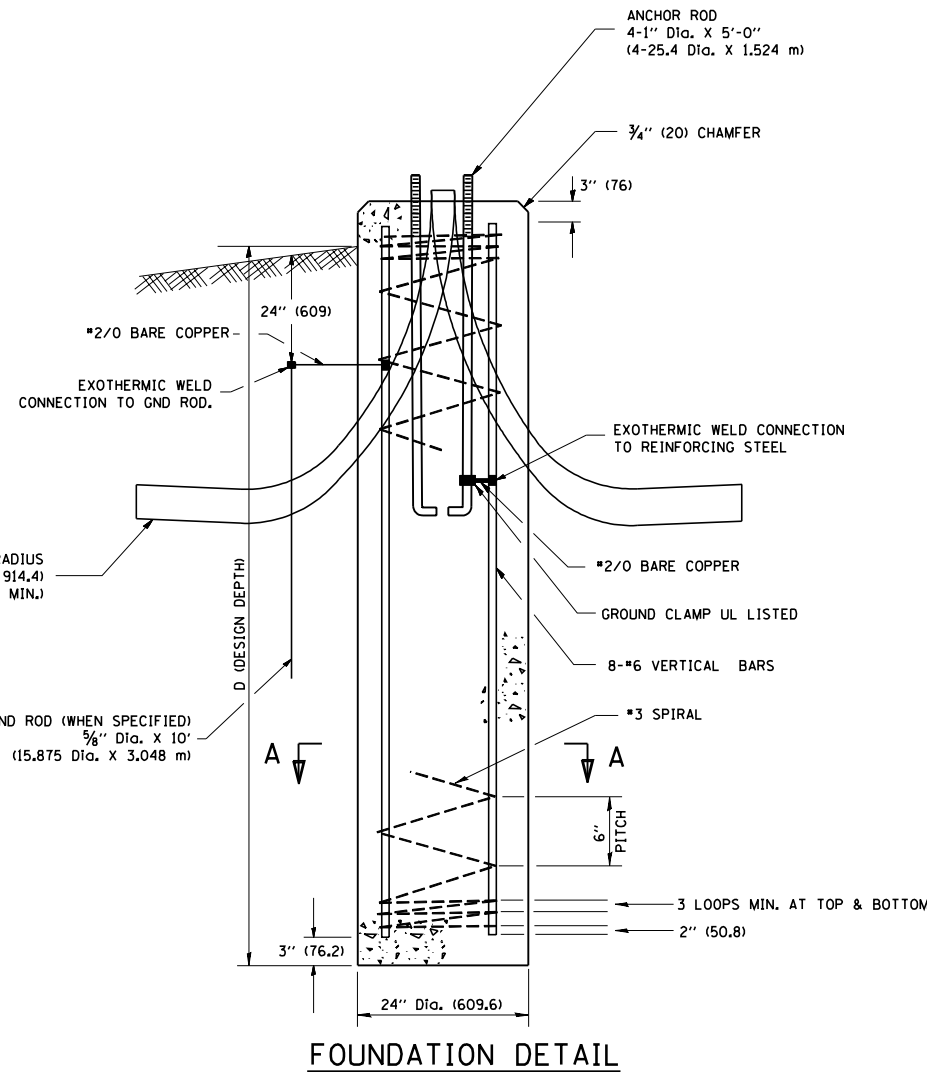
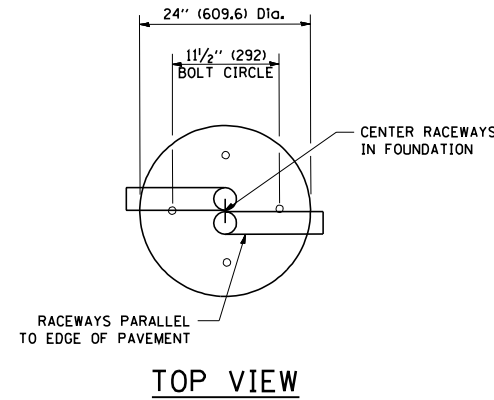
**PROPOSED LIGHTING ONE-LINE DIAGRAM**

SCALE: 1" = 50'    SHEET 6 OF 6 SHEETS    STA.    TO STA.

F.A.P. RTE.		SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0351		(537 & 3277-Z)B-1	COOK	184	121
CONTRACT NO. 60K73				ABNA PROJECT NO. 14-6066	
FED. ROAD DIST. NO. 1   ILLINOIS   FED. AID PROJECT					

**LIGHT POLE FOUNDATION DEPTH TABLE**  
**30 FT. (9.144 m) TO 35 FT. (10.668 m) MOUNTING HEIGHT**

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY Qu = 0.375 TON/SO. FT.	11'-0" (3.35 m)	12'-8" (3.85 m)
MEDIUM CLAY Qu = 0.75 TON/SO. FT.	9'-0" (2.74 m)	14'-10" (4.52 m)
STIFF CLAY Qu = 1.50 TON/SO. FT.	7'-6" (2.29 m)	8'-7" (2.61 m)
LOOSE SAND φ = 34°	9'-6" (2.90 m)	10'-7" (3.22 m)
MEDIUM SAND φ = 37.5°	9'-0" (2.74 m)	9'-10" (2.99 m)
DENSE SAND φ = 40°	8'-3" (2.51 m)	9'-7" (2.91 m)



**NOTES**

- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 4 IN. (100 mm) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS S1. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UM(6 MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.

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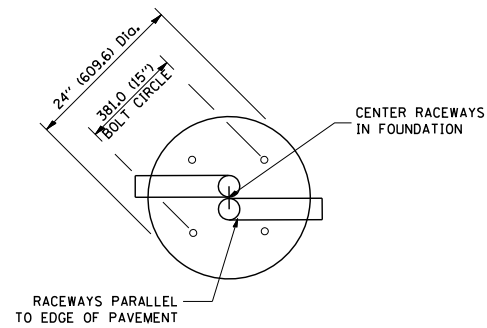
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LIGHT POLE FOUNDATION**  
**30' (9.144 m) TO 35' (10.668 m) M.H. 11 12" (292 mm) BOLT CIRCLE**  
 SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

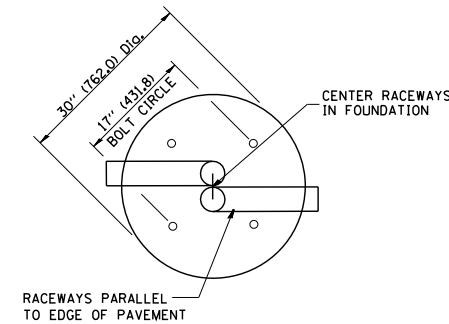
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351	(537 & 3277-Z)B-1	COOK	184	121A
<b>BE-300</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**LIGHT POLE FOUNDATION DEPTH TABLE**  
40 FT. (12.192 m) TO 47.5 FT. (14.478 m) MOUNTING HEIGHT

SOIL CONDITIONS	DESIGN DEPTH "D" OF FOUNDATION	
	SINGLE ARM POLE	TWIN ARM POLE
SOFT CLAY O <sub>u</sub> = 0.375 TON/SO. FT.	13'-0" (3.96 m)	15'-0" (4.57 m)
MEDIUM CLAY O <sub>u</sub> = 0.75 TON/SO.FT	9'-6" (2.93 m)	10'-9" (3.23 m)
STIFF CLAY O <sub>u</sub> = 1.50 TON/SO. FT.	7'-0" (2.13 m)	8'-0" (2.44 m)
LOOSE SAND φ = 34°	9'-0" (2.74 m)	10'-0" (3.05 m)
MEDIUM SAND φ = 37.5°	8'-3" (2.52 m)	9'-0" (2.74 m)
DENSE SAND φ = 40°	7'-9" (2.36 m)	9'-0" (2.74 m)



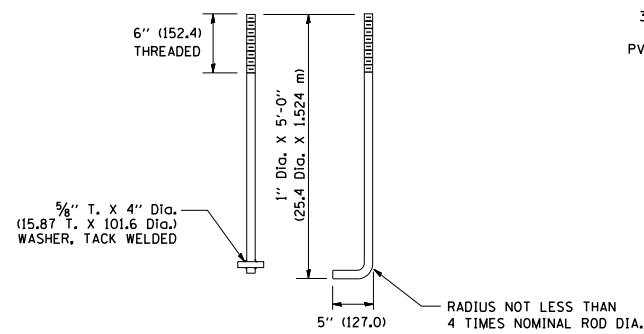
**TOP VIEW**



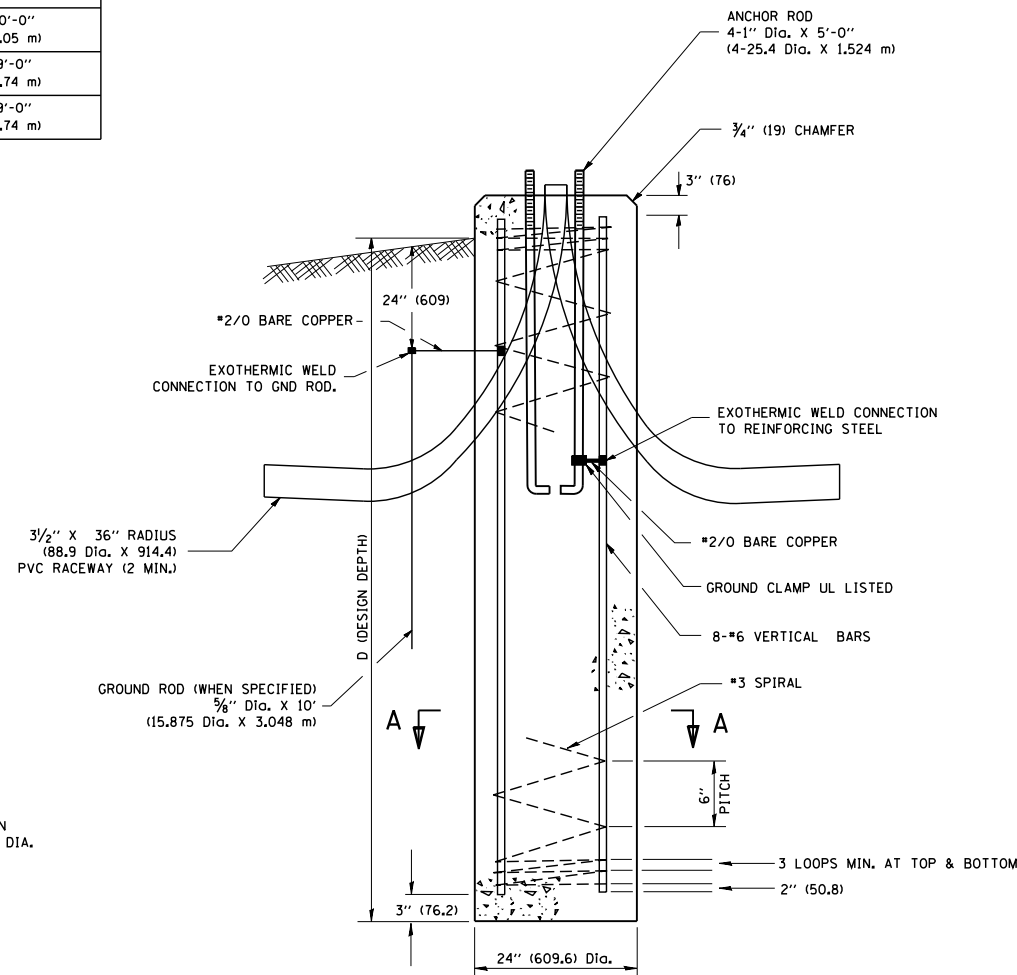
**TOP VIEW**

**NOTES**

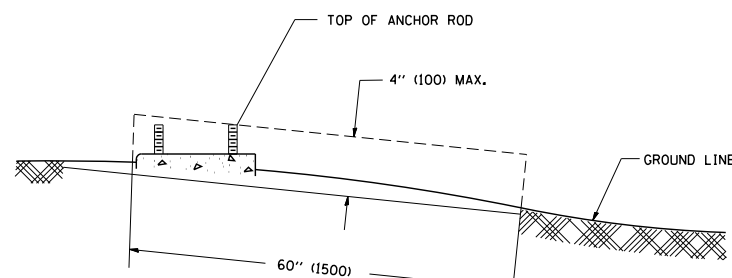
- ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.
- THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
- THE FOUNDATION SHALL NOT PROTRUDE MORE THAN 100MM (4 IN.) ABOVE THE FINISHED GRADE WITHIN A 60 IN. (1.5 m) CHORD ACROSS THE FOUNDATION, WITH ANCHOR RODS INCLUDED, IN ACCORDANCE WITH AASHTO GUIDELINES. IF THE FOUNDATION HEIGHT, INCLUDING ANCHOR RODS, EXTENDS BEYOND THESE SPECIFIED LIMITS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. SEE FOUNDATION EXTENSION DETAIL.
- THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION. IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
- THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION. FOUNDATION TOP SHALL BE CHAMFERED 3/4-IN. (20 mm).
- THE CONCRETE SHALL BE CLASS SI. CONCRETE SHALL CURE ACCORDING TO ARTICLE 1020.13 BEFORE LIGHT POLES ARE INSTALLED.
- THE ANCHOR ROD SHALL BE A HOOK ROD TYPE. COLD BENDING OF THE ANCHOR ROD WILL NOT BE ALLOWED. THE RADIUS OF THE HOOK BEND SHALL NOT BE LESS THAN 4 TIMES THE NOMINAL DIAMETER OF THE ANCHOR ROD. A TACK WELDED ANCHOR ROD MAY BE SUBSTITUTED WITH THE APPROVAL OF THE ENGINEER.
- THE ANCHOR RODS SHALL BE ACCORDING TO ASTM F1554 GRADE 725 (GRADE 105). NUTS SHALL BE HEXAGON NUTS ACCORDING TO ASTM A 194 2H OR ASTM A 563 DH, AND WASHERS SHALL BE ACCORDING TO ASTM F 436.
- ANCHOR RODS, NUTS AND WASHERS SHALL BE COMPLETELY GALVANIZED BY EITHER THE HOT-DIPPED PROCESS CONFORMING WITH AASHTO M 232, THE MECHANICAL PLATING METHOD CONFORMING TO AASHTO M 298, CLASS 50 WITH A MAXIMUM COATING THICKNESS OF 150 UMG MILS) OR THE ELECTROLYTIC PROCESS ACCORDING TO ASTM F 1136.
- THE ANCHOR RODS SHALL BE THREADED A MINIMUM OF 6 INCHES (150 mm) WITH A MINIMUM OF 3 INCHES (75 mm) OF THREADED ANCHOR ROD EMBEDDED IN THE FOUNDATION.
- ANCHOR RODS SHALL PROJECT 2 3/4" (69.9 mm) ABOVE THE TOP OF THE FOUNDATION. IF BREAKAWAY COUPLINGS ARE SPECIFIED, THE CONTRACTOR SHALL CAREFULLY COORDINATE THE ANCHOR ROD PROJECTION WITH THE INSTALLATION REQUIREMENTS OF THE BREAKAWAY COUPLINGS.
- THE CONTRACTOR SHALL USE A #3 SPIRAL AT 6" (152.4 mm) PITCH OR MAY SUBSTITUTE #3 TIES AT 12" (304.8 mm) O.C. WITH THE APPROVAL OF THE ENGINEER.
- THE CABLE TRENCHES AND FOUNDATION SHALL BE BACK FILLED AND COMPACTED AS SPECIFIED BEFORE THE LIGHT POLE IS ERECTED.
- THE RACEWAYS SHALL PROJECT 1" (25.4 mm) ABOVE THE TOP OF THE FOUNDATION.



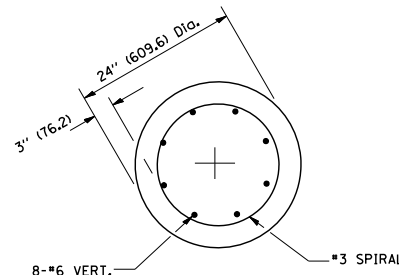
**ANCHOR ROD DETAIL**



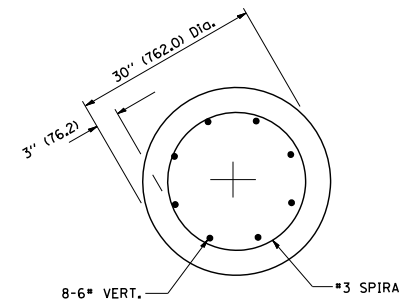
**FOUNDATION DETAIL**



**FOUNDATION EXTENSION DETAIL**



**SECTION A-A**



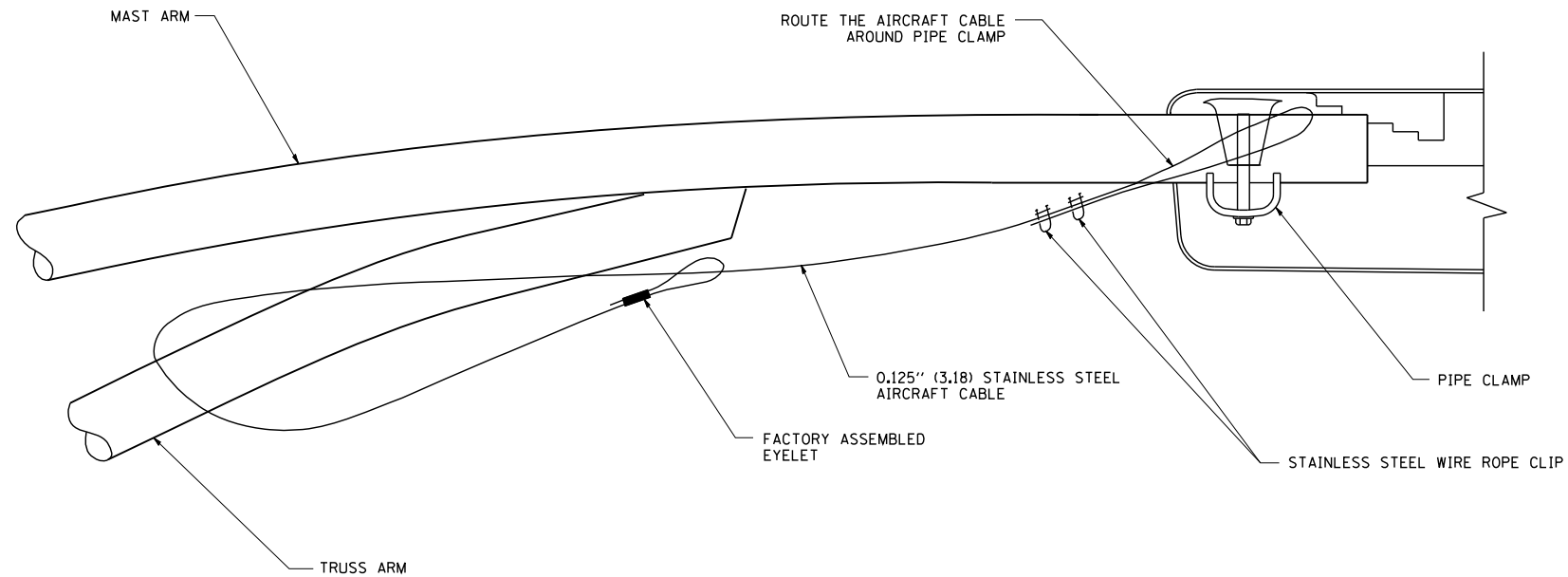
**SECTION A-A**

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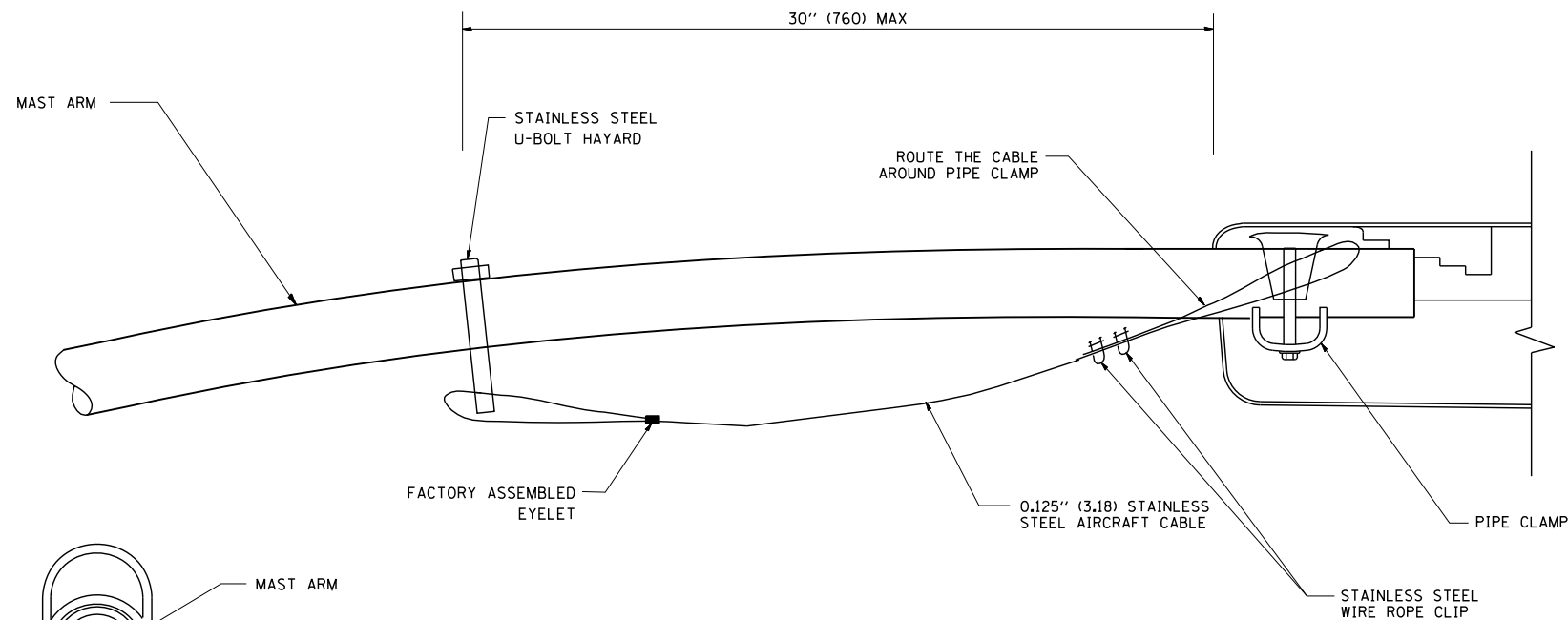
**STATE OF ILLINOIS**  
**DEPARTMENT OF TRANSPORTATION**

**LIGHT POLE FOUNDATION**  
**40' (12.192 m) TO 47' 1/2' (14.478 m) M.H. 15" (381 mm) BOLT CIRCLE**  
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

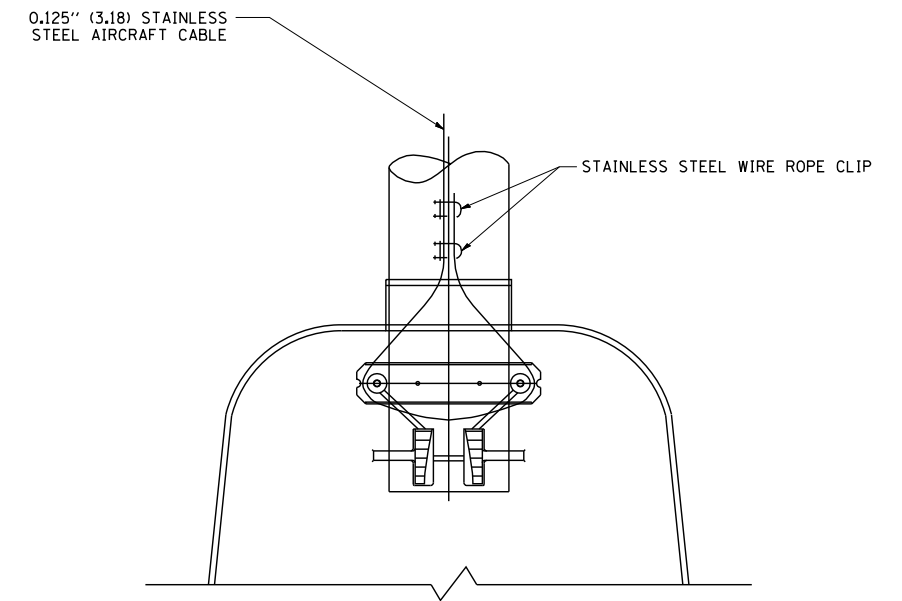
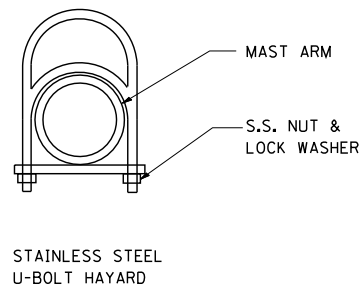
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-2)B-1	COOK	184	122
<b>BE-301</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**SIDE VIEW (TRUSS ARM)**  
N.T.S.



**SIDE VIEW (SINGLE MEMBER OR DAVIT ARM)**  
N.T.S.



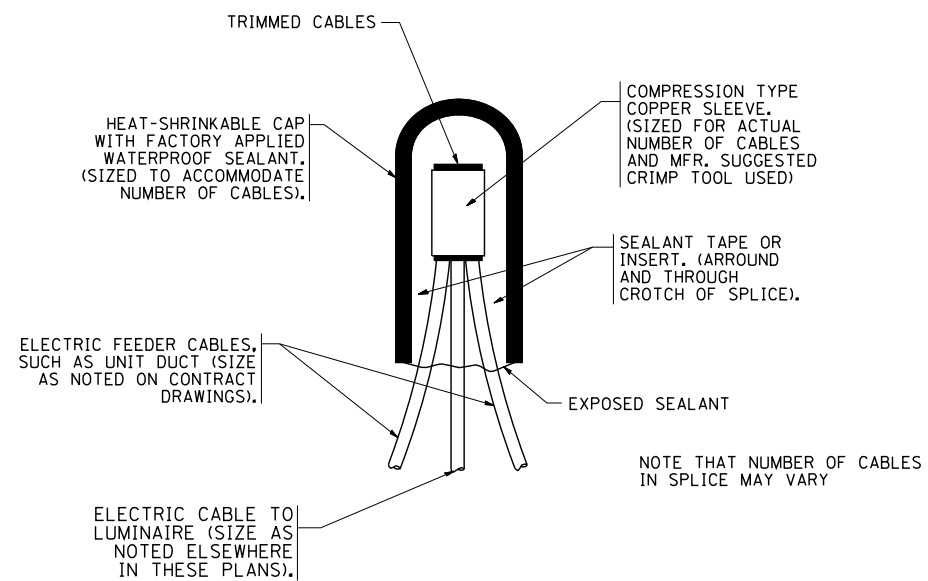
**BOTTOM VIEW**  
N.T.S.

**NOTES:**

1. ALL DIMENSIONS ARE IN MILLIMETERS (INCHES) UNLESS OTHERWISE SHOWN.
2. CONTRACTOR SHALL ADJUST THE WIRE CLIP TO ELIMINATE ANY SLACK FROM THE WIRE ROPE.
3. THE 0.125" (3.18) STAINLESS STEEL AIRCRAFT CABLE SHALL REMAIN VISIBLE FROM THE GROUND LEVEL.
4. THE BREAKING STRENGTH OF THE CABLE SHALL BE 1700 LBS. MIN.

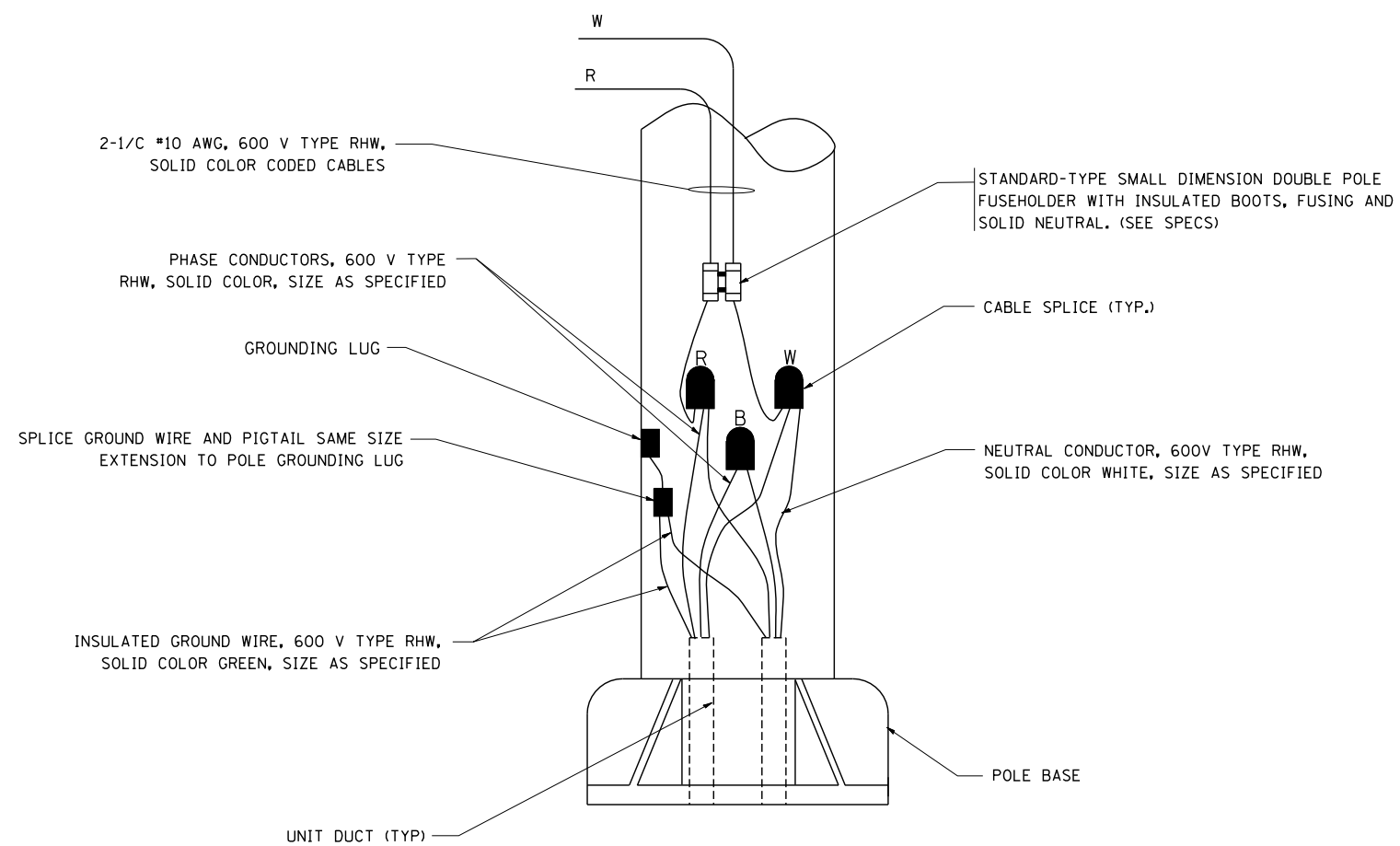
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								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





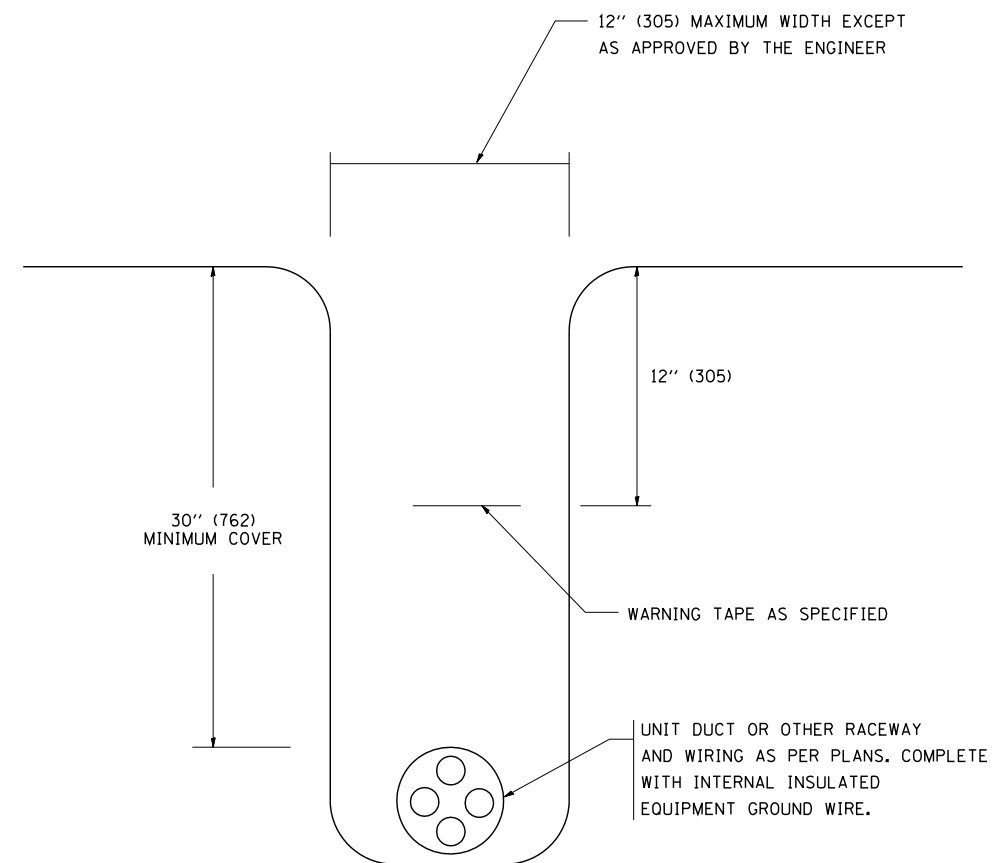
**TYPICAL SPLICE DETAIL**

N.T.S.



**POLE WIRING DETAIL**

N.T.S.



**TYPICAL WIRING IN TRENCH DETAIL**

N.T.S.

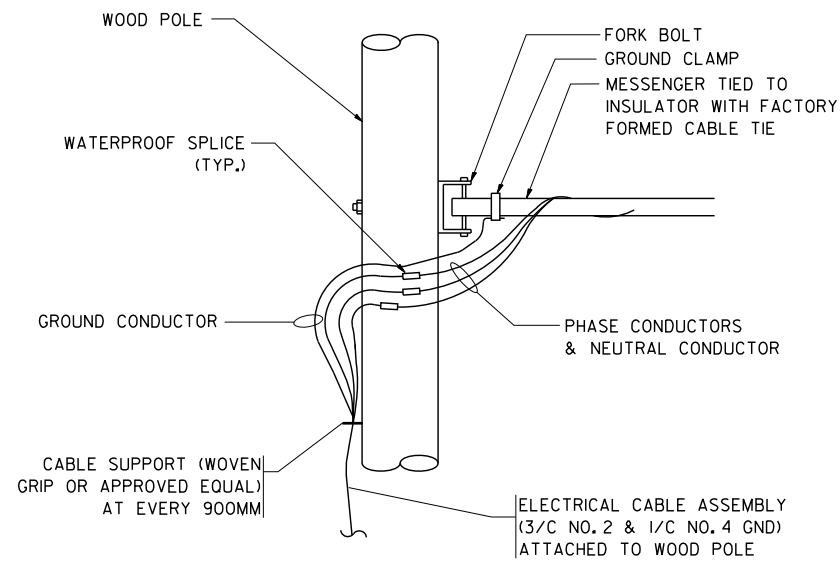
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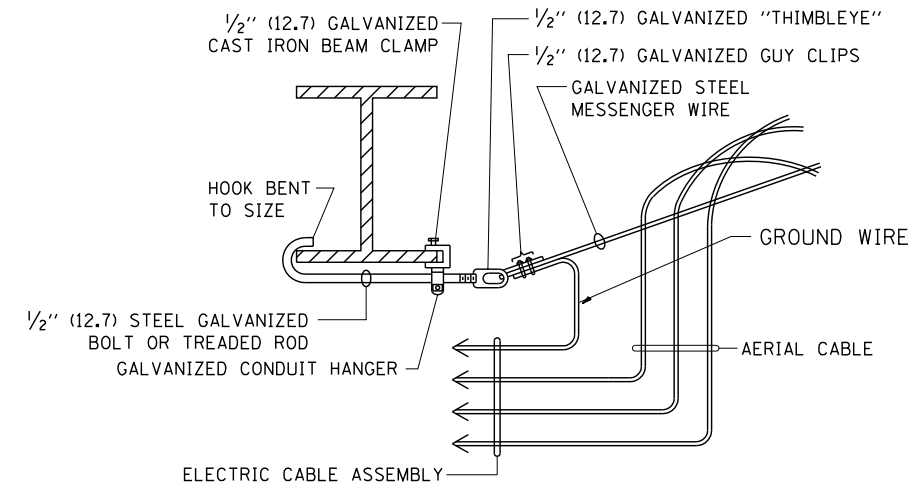
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>MISC. ELECTRICAL DETAILS SHEET A</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	124
<b>BE-702</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



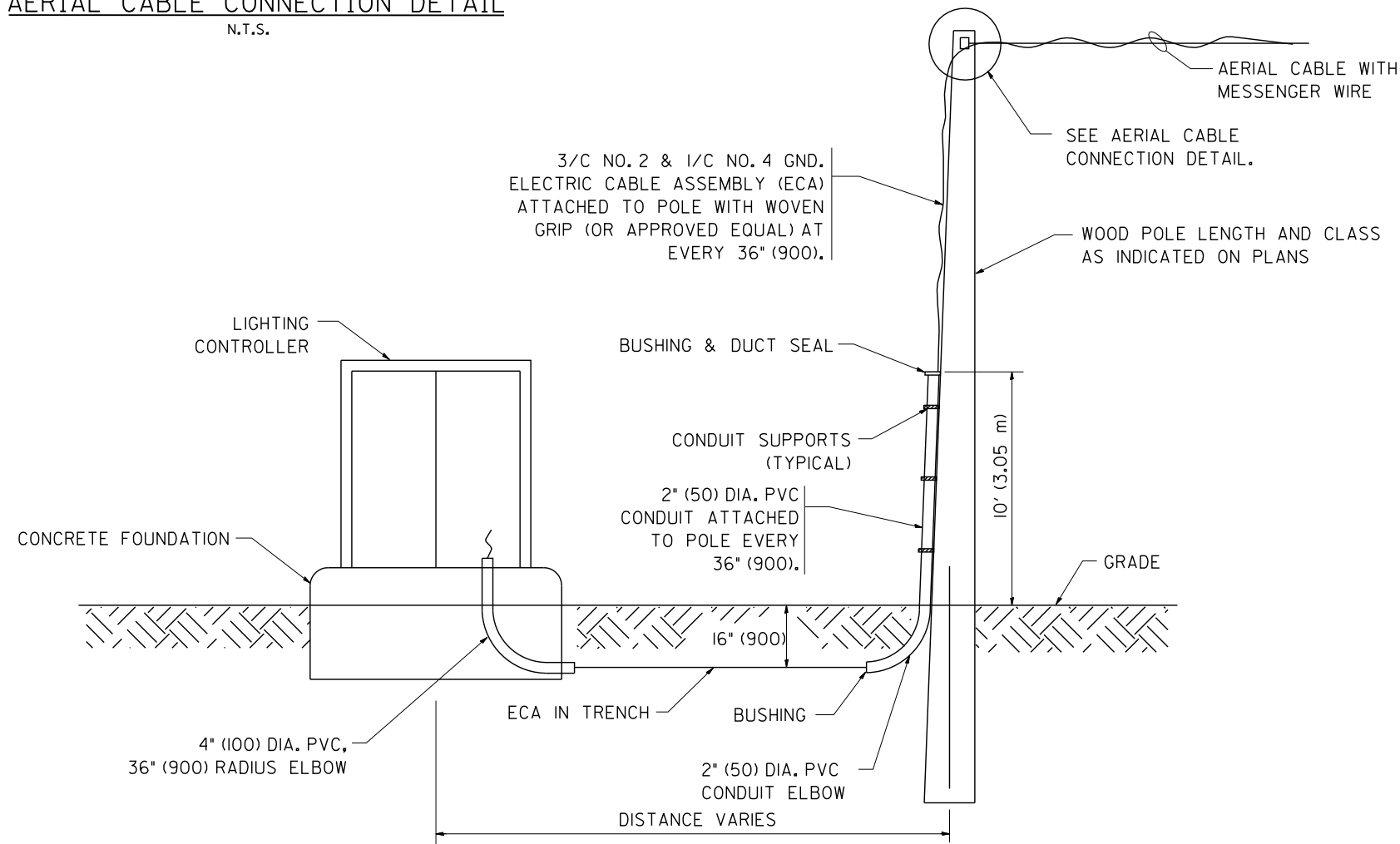
**AERIAL CABLE CONNECTION DETAIL**  
N.T.S.



**AERIAL CABLE ATTACHED TO STRUCTURE**  
NOT TO SCALE

**NOTES:**

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



**WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL**  
N.T.S.

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PLOT SCALE = 50.000' / IN.  
PLOT DATE = 1/4/2008

DESIGNED -  
DRAWN -  
CHECKED -  
DATE -

REVISED - 08-08-03  
REVISED -  
REVISED -  
REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY AERIAL CABLE INSTALLATION**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	125
<b>BE-001</b>		<b>CONTRACT NO. 60K73</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

Benchmark: Chiseled Cross in sidewalk, 38.9' west of  $\odot$  of IL Route 50 (Cicero Ave.) and 442.3' north of  $\odot$  of US Route 6 (159th Street). Elevation 642.37

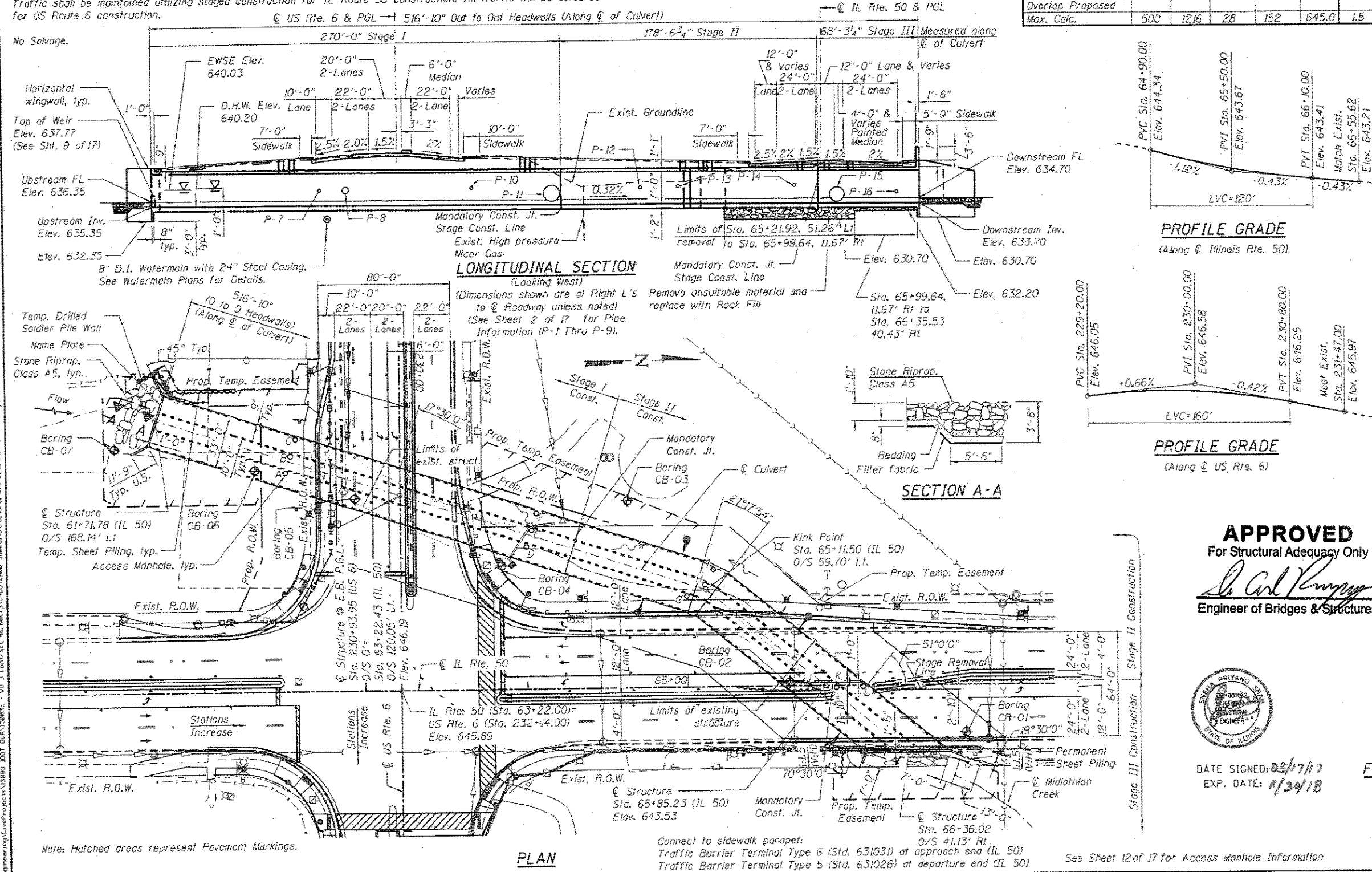
Existing Structure: The structure carrying US Route 6 (159th Street) (SM 016-2843) over Midlothian Creek was constructed in 1930 as a single span reinforced concrete slab bridge. The structure was extended to the south in 1931 under Construction Route SBI 53, Section 537 X. In 1946, the roadway above the structure was widened and the wearing surface was replaced. In 1991, under Contract 80782 as Construction Route FA 351, Section 3277 WRS & 1212.I BR (90) the pavement above the structure was resurfaced. Two closed wall abutments supported on spread footings support the bridge. The structure has multiple kinks due to various widenings. The out to out length of the structure is 120 ft., the skew angle of the section under westbound 27°36' and eastbound is 38°52'. The structure carrying IL Route 50 (Cicero Ave.) (SM 016-0423) over Midlothian Creek is a double cell 10'-0" wide x 4'-6" high cast in place concrete box culvert. The overall culvert length is 90' out to out of headwalls and skew is 48°40'. Traffic shall be maintained utilizing staged construction for IL Route 50 construction. All traffic will be detoured for US Route 6 construction.

### DESIGN SCOUR ELEVATION TABLE

Design Scour Elevation (ft.)	D.S. Invert	U.S. Invert
	630.70	632.35

### WATERWAY INFORMATION

Drainage Area = 11.7 sq.mi		Exist. Overtopping Elev. - 645.20 @ Sta. 230+85 (US 6)		Prop. Overtopping Elev. - 646.36 @ Sta. 230+93.96 (US 6)			
Flood	Freq. Yr.	Q C.F.S.	Opening Sq. Ft.	Not. H.W.E.	Head - Ft.	Headwater El. Exist. Prop.	
Peak	2	90	18	638.3	1.6	0.0	639.91/638.38
	10	212	28	639.4	3.0	0.0	642.40/639.40
Design	50	319	28	640.1	4.7	0.1	644.80/640.20
Base	100	598	28	641.6	3.6	0.0	645.20/641.60
Scour Design Check							
Overtop Existing							
Overtop Proposed							
Max. Calc.							500 1216 28 152 645.0 1.5 0.8 646.50/645.80



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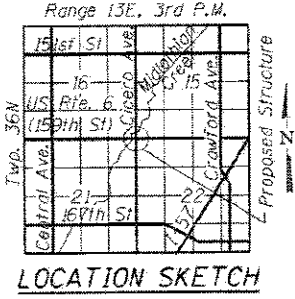
STATION 65+85.23  
BUILT 20 BY  
STATE OF ILLINOIS  
F.A.P. RTE. 351 & 350  
SECTION (537 & 3277-Z)B-1  
LOADING HL-93  
STRUCTURE NO. 016-2849

**NAME PLATE**  
See Std. 515001

**DESIGN SPECIFICATIONS**  
2014 AASHTO LRFD Bridge  
Design Specifications, 7th Edition  
with 2016 Interim Revisions

**LOADING HL-93**  
Allow 50#/sq. ft. for future wearing surface

**DESIGN STRESSES**  
**FIELD UNITS**  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinforcement)  
f<sub>b</sub> = 1,000 psi (Untreated Timber Logging)  
f<sub>y</sub> = 36,000 psi (A270 Grade 36)



**APPROVED**  
For Structural Adequacy Only  
*Carl Ruppberg*  
Engineer of Bridges & Structures



DATE SIGNED: 03/17/17  
EXP. DATE: 1/30/18

**GENERAL PLAN AND ELEVATION**  
**U.S. ROUTE 6 AND IL ROUTE 50**  
**OVER MIDLOTHIAN CREEK**  
**F.A.P. RTE. 351 & F.A.P. RTE 350**  
**SECTION (537 & 3277-Z)B-1**  
**COOK COUNTY**  
**STATION 65+85.23 (IL RTE. 50)**  
**STRUCTURE NO. 016-2849**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	126

CONTRACT NO. 60K73  
ILLINOIS FED. AID PROJECT



USER NAME	DESIGNED	CHECKED	DRAWN	REVISOR
johnn	AB	SPS	JN	SPS

DESIGNED - AB  
CHECKED - SPS  
DRAWN - JN  
REVISOR - SPS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CONNECT TO SIDEWALK PARAPET:  
Traffic Barrier Terminal Type 6 (Std. 631031) at approach end (IL 50)  
Traffic Barrier Terminal Type 5 (Std. 631026) at departure end (IL 50)

See Sheet 12 of 17 for Access Manhole Information

SHEET NO. 1 OF 17 SHEETS

**INDEX OF SHEETS**

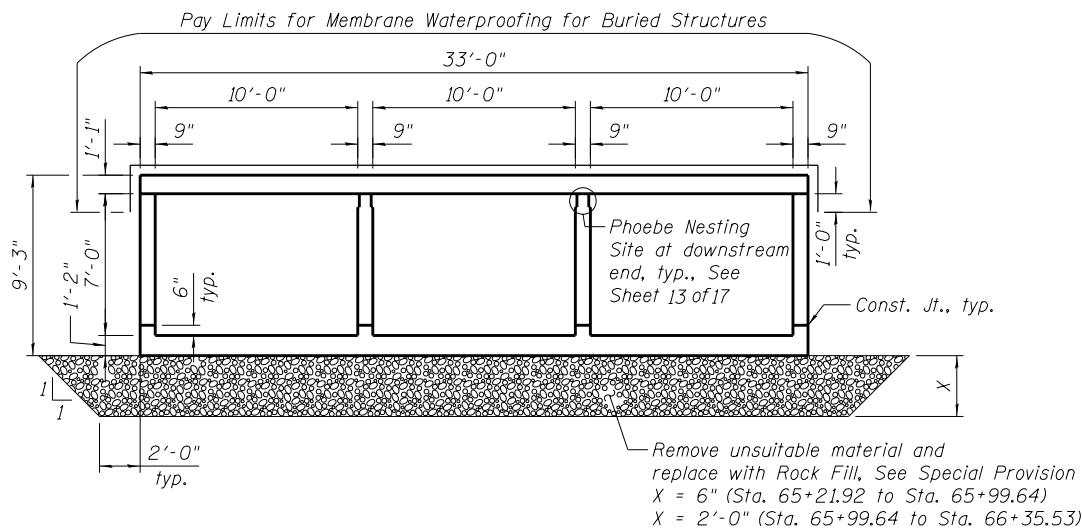
- |  |   |
|--|---|
| 1. General Plan and Elevation                                | 9. Culvert Barrel Sections and Weir Details             |
| 2. General Notes, Index of Sheets and Total Bill of Material | 10. Wingwall Details                                    |
| 3. Bottom Slab Layout  | 11. Junction Chamber Details                            |
| 4. Construction Staging IL Route 50 (Cicero Ave.)            | 12. Access Manhole Details                              |
| 5. Temporary Concrete Barrier for Stage Construction         | 13. Culvert and Reinforcing Details                     |
| 6. Temporary Sheet Piling and Soldier Pile Wall Details      | 14. Bar Splicer Assembly And Mechanical Splicer Details |
| 7. Culvert Plan US Rte. 6 (159th. St.)                       | 15. Boring Logs-I                                       |
| 8. Culvert Plan IL Rte. 50 (Cicero Ave.)                     | 16. Boring Logs-II                                      |
|  | 17. Boring Logs-III                                     |

**GENERAL NOTES**

- Precast alternative is not allowed.
- Reinforcement bars designated (E) shall be epoxy coated.
- All excavation required for construction of the culvert as shown in these plans and in accordance with the Standard Specifications shall be included in the cost for Concrete Box Culverts.
- The Contractor is advised that the existing bridge carrying US 6 and existing box culvert carrying IL 50 is in a deteriorated condition with reduced load carrying capacity. It is the Contractor's responsibility to account for the condition of the culvert when developing construction procedures for the removal and replacement of the culvert.
- The Contractor shall be responsible to divert the stream flow during construction to keep construction area free of water. The method of water diversion shall be subject to the approval of the Engineer and the cost shall be included in the cost for Concrete Box Culverts.
- Layout of the slope protection system may be varied to suit ground conditions in the field as directed by the Engineer.
- The limits and quantities of soil removal and replacement shown are based on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.
- The Contractor cannot construct the culvert past the mandatory construction joint shown on sheet 3 of 17 until traffic on IL 50 is shifted to Stage II traffic patterns.
- Concrete Sealer shall be applied to the inside and top surface of the concrete barrier at the downstream end of the culvert.
- If the Contractor chooses to construct the upstream side of the culvert before detouring traffic on US Rte. 6, it shall be the Contractor's responsibility to maintain a safe distance from the edge of the roadway to facilitate an open cut construction of the culvert.

**TOTAL BILL OF MATERIAL**

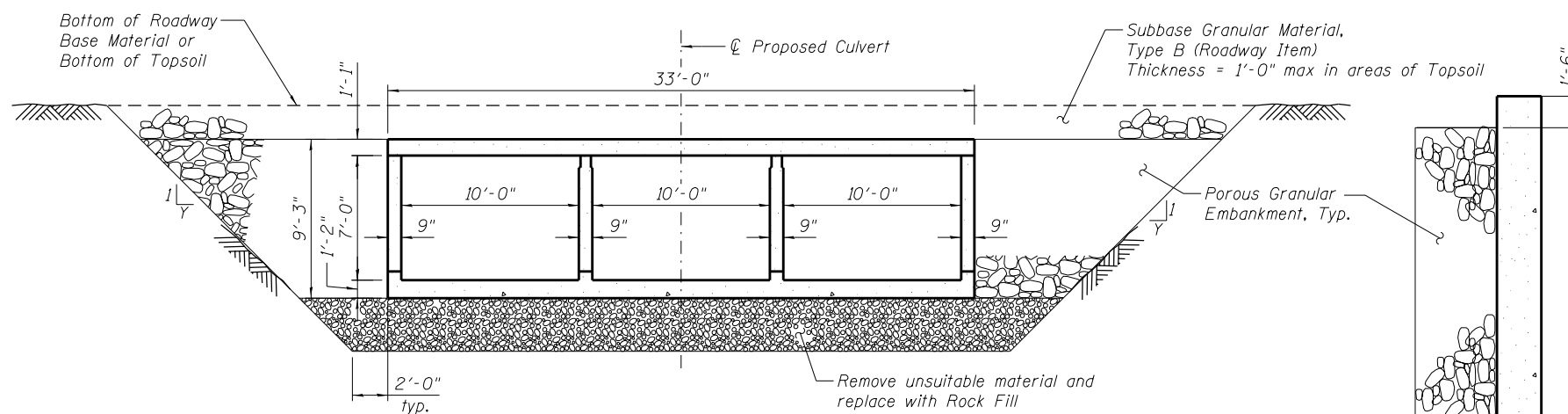
ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu Yd	2603
Stone Riprap, Class A5	Sq Yd	124
Filter Fabric	Sq Yd	124
Removal of Existing Structures No. 1	Each	1
Removal of Existing Structures No. 2	Each	1
Removal and Disposal of Unsuitable Material for Structures	Cu Yd	957
Reinforcement Bars, Epoxy Coated	Pound	281,940
Bar Splicers	Each	672
Name Plates	Each	1
Temporary Sheet Piling	Sq Ft	4522
Permanent Sheet Piling	Sq Ft	426
Furnishing Soldier Piles (HP Section)	Foot	242
Drilling and Setting Soldier Piles (In Soil)	Cu Ft	1184
Untreated Timber Lagging	Sq Ft	298
Concrete Box Culverts	Cu Yd	1866.2
Concrete Sealer	Sq Ft	263
Remove Sheet Piling	L Sum	1
Membrane Waterproofing for Buried Structures	Sq Yd	2135
Rock Fill	Cu Yd	323



**SECTION THRU BARREL**  
(At Right L's to Culvert)

**NOTE:**

Excavation for construction of the box culvert and the wingwalls, including the excavation necessary to construct the Porous Granular Embankment, is included with the cost of Concrete Box Culverts.



**SECTION THRU BARREL**  
(At Right L's to Culvert)

**SECTION THRU WINGWALLS**

Station (IL-50)	Y
61+71.70 to 65+21.93	1.0
65+21.93 to 66+36.53	1.5

**SCOPE OF WORK**

- Detour existing traffic on US 6 for Stage I Construction as shown on detour plan. Install Temporary Sheet Piling and Temporary Soldier Pile Wall at upstream end of the culvert as shown on the plans and as directed by the Engineer.
- Remove existing roadway and bridge carrying US 6 over Midlothian Creek.
- Construct proposed culvert and roadway in Stage I Construction from the upstream end of the culvert to the mandatory construction joint as shown on Sheet 3 of 17. Construct wingwalls at upstream end.
- Remove Temporary Sheet Piling and Temporary Soldier Pile wall after the wingwalls are constructed at the upstream end as directed by the Engineer.
- Reopen US 6 for all traffic. Shift traffic on IL 50 to Stage II traffic pattern as shown on Sheet 4 of 17.
- Install Temporary Sheet Piling at the Stage Construction line on IL 50 as shown on the plans and as directed by the Engineer. Remove existing roadway and culvert carrying southbound lanes of IL 50 over Midlothian Creek. Remove existing sheet piling along IL 50 at the upstream end of the existing culvert.
- Construct Junction Chamber, and proposed culvert and roadway in Stage II Construction from mandatory construction joint to the stage construction line on IL 50.
- Shift traffic on newly constructed roadway and remove existing culvert and roadway carrying northbound lanes of IL 50 over Midlothian Creek.
- Construct proposed culvert and roadway in Stage III Construction. Construct wingwalls at downstream end. Install Permanent Sheet Piling at north wingwall.
- Re-establish the flow through proposed culvert.

**DRAINAGE PIPE SCHEDULE**

No.	Pipe Dia.	Location	Station	Offset	Invert Elev.	Skew Angle
P-7	12"	S. Sidewall	62+75.58 (IL 50)	117.68' (LT)	640.10	09°53'20"
P-8	24"	N. Sidewall	62+91.30 (IL 50)	147.31' (LT)	Match Exist.	16°47'11"
P-10	12"	S. Sidewall	63+68.63 (IL 50)	87.98' (LT)	639.80	90°00'00"
P-11	60"	N. Sidewall	64+23.66 (IL 50)	105.06' (LT)	635.80	25°43'20"
P-12	12"	S. Sidewall	64+72.56 (IL 50)	54.81' (LT)	639.10	90°00'00"
P-13	12"	N. Sidewall	64+97.38 (IL 50)	81.53' (LT)	639.40	90°00'00"
P-14	12"	N. Sidewall	65+68.68 (IL 50)	34.63' (LT)	639.10	90°00'00"
P-15	54"	S. Sidewall	65+94.29 (IL 50)	28.57' (RT)	635.00	90°00'00"
P-16	12"	N. Sidewall	66+52.20 (IL 50)	33.00' (RT)	637.29	51°17'41"

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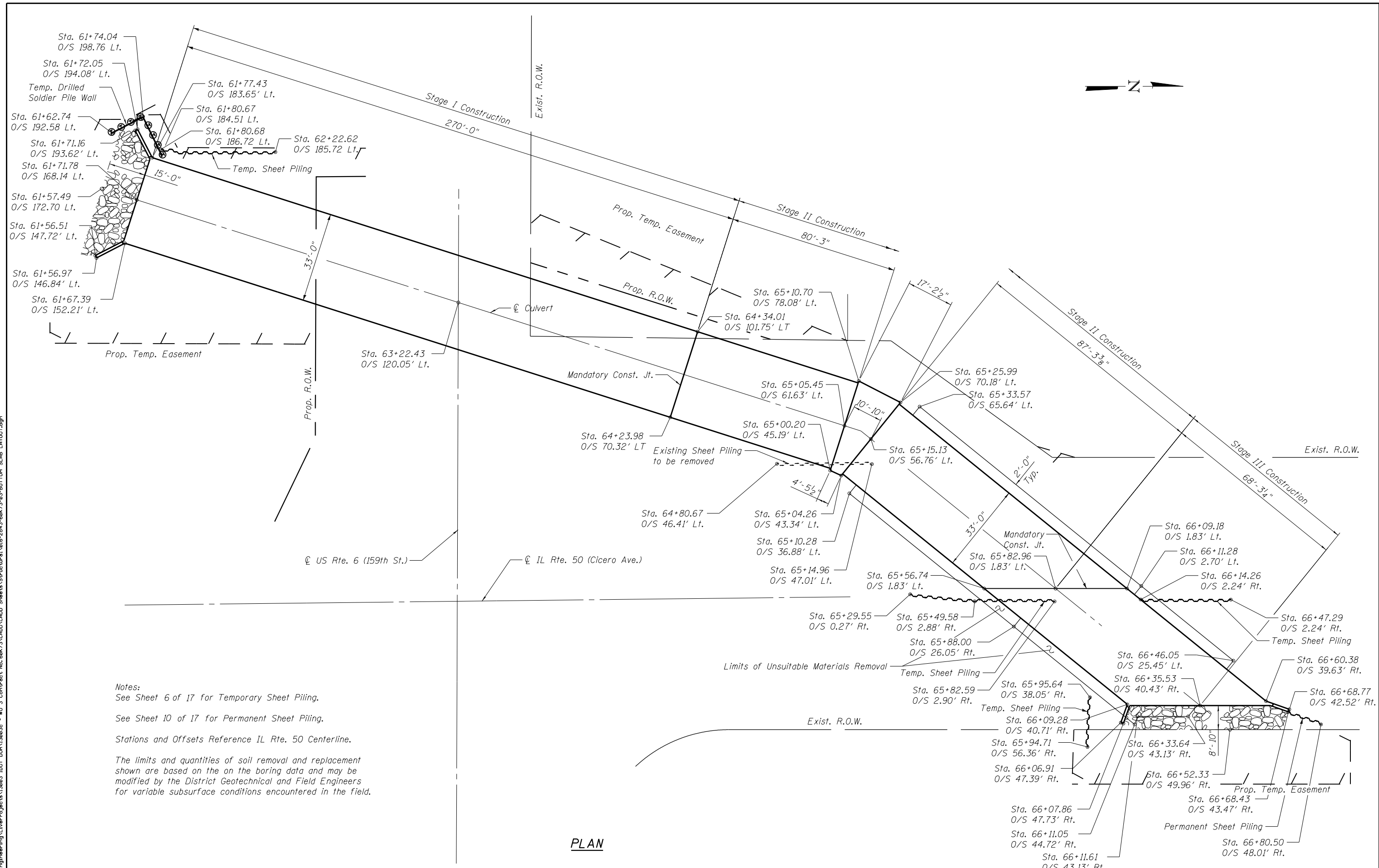
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIAL  
STRUCTURE NO. 016-2849**

SHEET NO. 2 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	127
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

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Notes:  
 See Sheet 6 of 17 for Temporary Sheet Piling.  
 See Sheet 10 of 17 for Permanent Sheet Piling.  
 Stations and Offsets Reference IL Rte. 50 Centerline.  
 The limits and quantities of soil removal and replacement shown are based on the on the boring data and may be modified by the District Geotechnical and Field Engineers for variable subsurface conditions encountered in the field.

PLAN



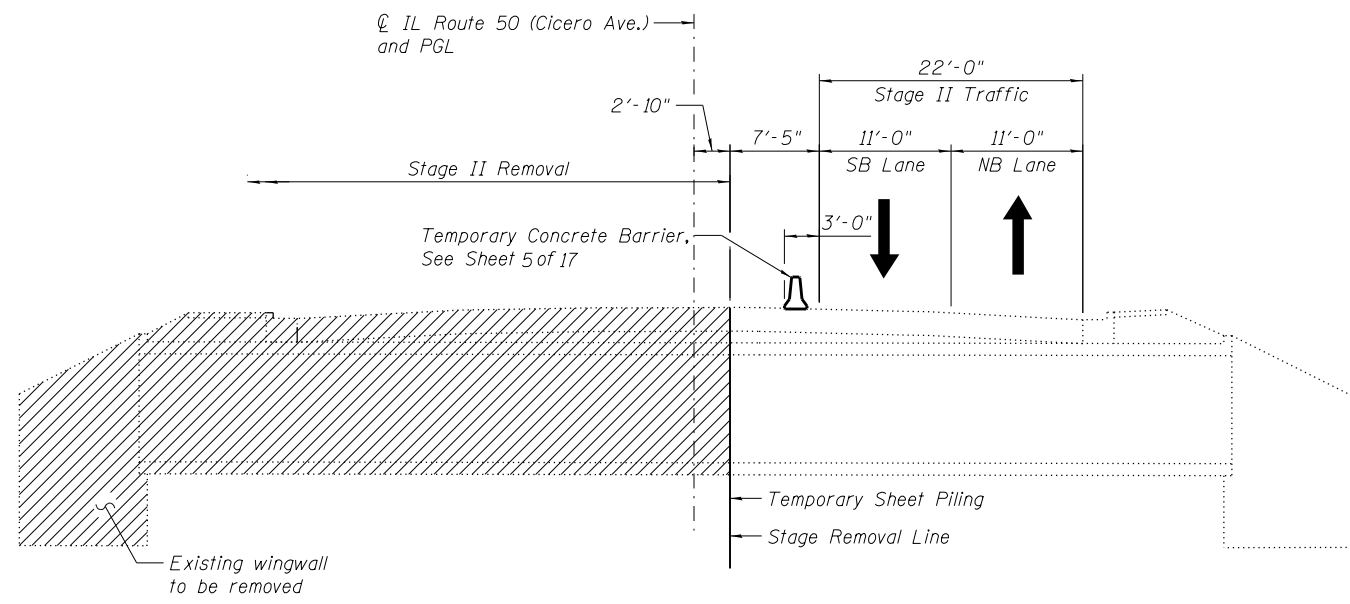
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PLOT DATE = 6/13/2017	CHECKED - SPS	REVISED

STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

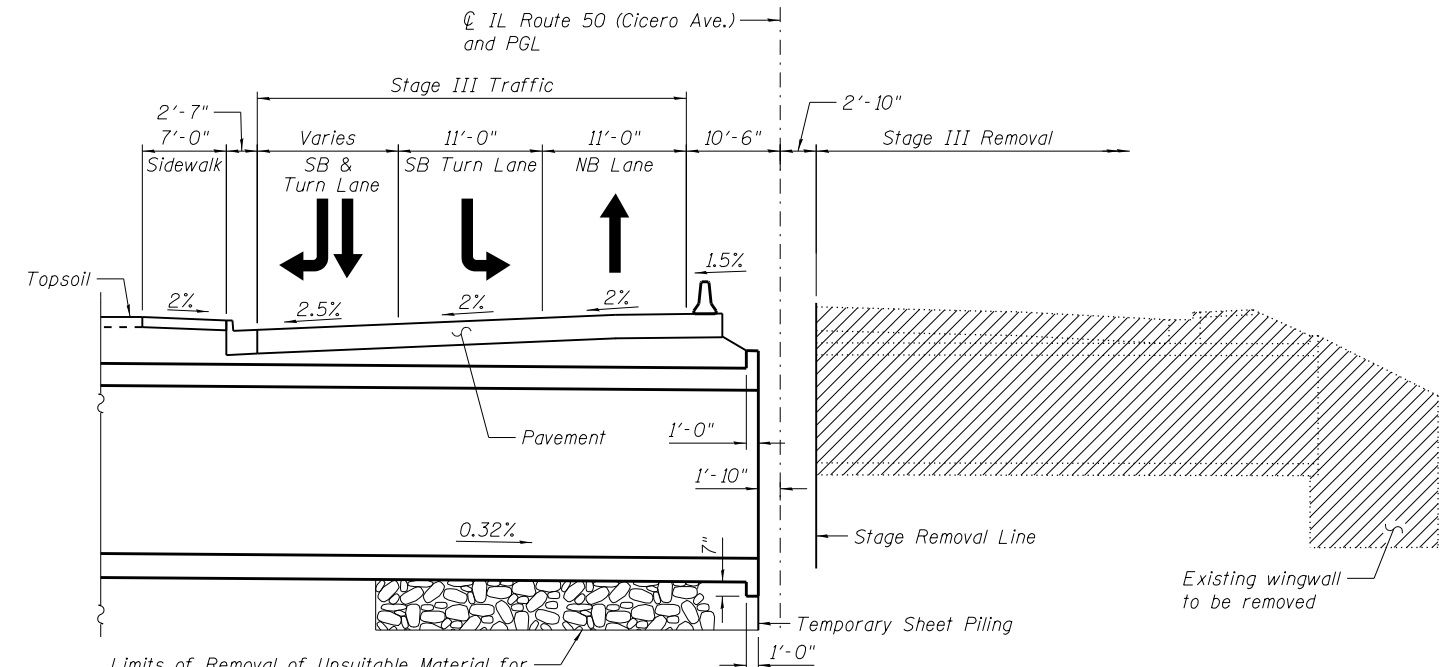
BOTTOM SLAB LAYOUT  
 STRUCTURE NO. 016-2849

SHEET NO. 3 OF 17 SHEETS

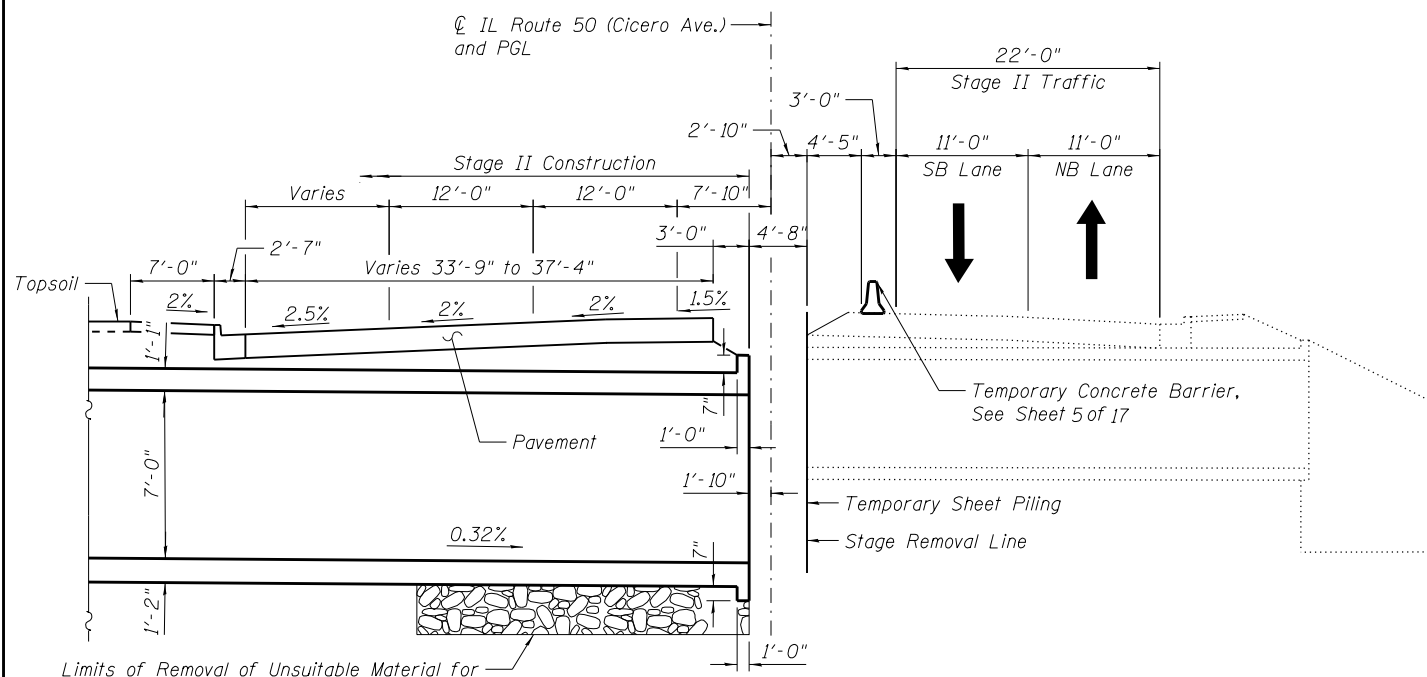
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	128
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



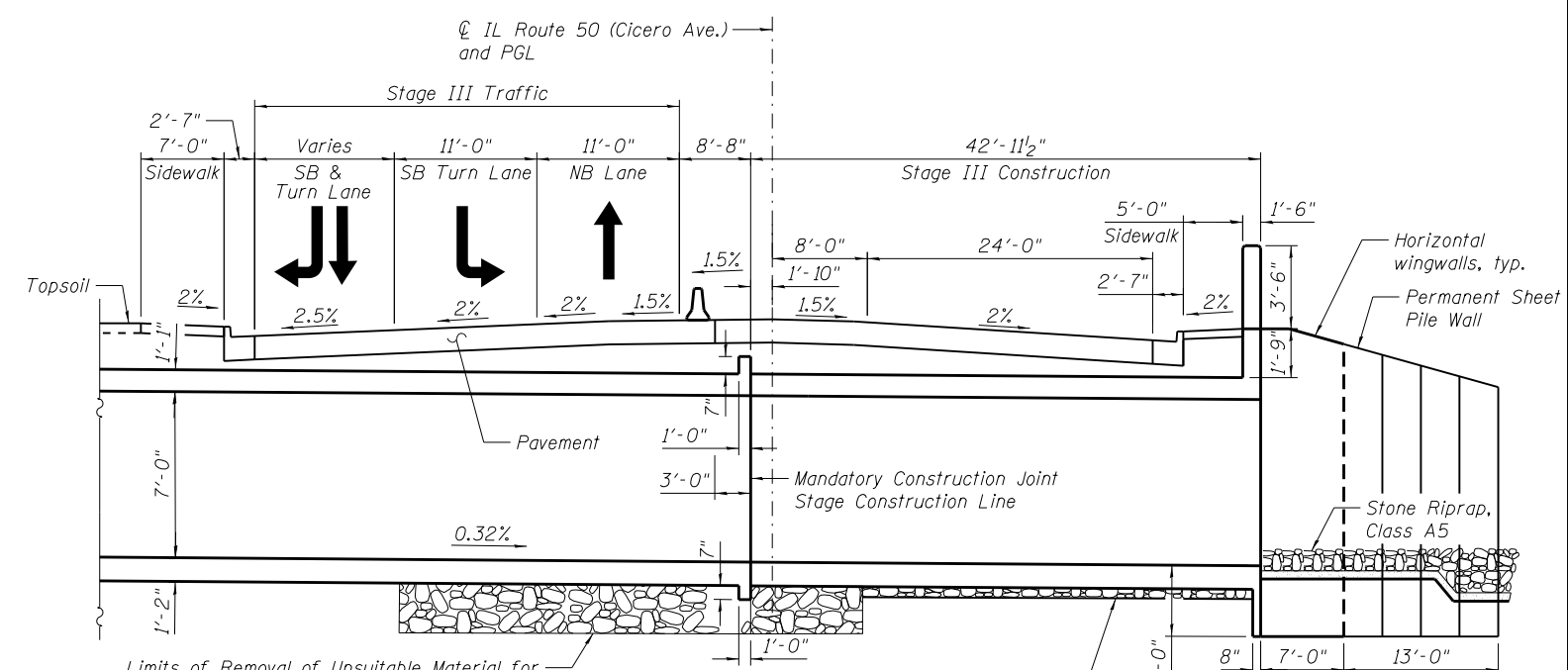
**STAGE II REMOVAL**



**STAGE III REMOVAL**



**STAGE II CONSTRUCTION**



**STAGE III CONSTRUCTION**

**LEGEND**

Removal of Existing Structure

**NOTES:**

1. All dimensions are measured perpendicular to roadway.
2. All Sections are looking North.
3. Stage I includes the detour of Route 6. See Sheets 40- 41 in roadway plans for Detour Route. Stage I Construction for the culvert is from the upstream end of the culvert to the mandatory construction joint as shown on Sheet 3 of 17. Construction of the culvert is prohibited past the mandatory construction joint until traffic on IL 50 is shifted to Stage II traffic patterns.
4. For quantity of Temporary Concrete Barrier, See Roadway Plans.

FILE NAME = Q:\Engineering\LiveProjects\13003 IDOT DUR\13003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Structural\016-2843-60K73-94-StageRemoval.dgn



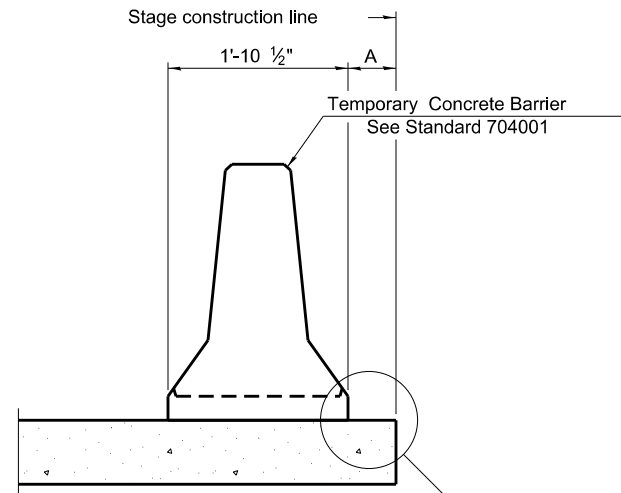
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	CHECKED - SPS	REVISED
PLOT SCALE = 1/8" = 1' / in.	DRAWN - JN	REVISED
PLOT DATE = 6/13/2017	CHECKED - SPS	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING IL ROUTE 50 (CICERO AVE.)  
STRUCTURE NO. 016-2849**

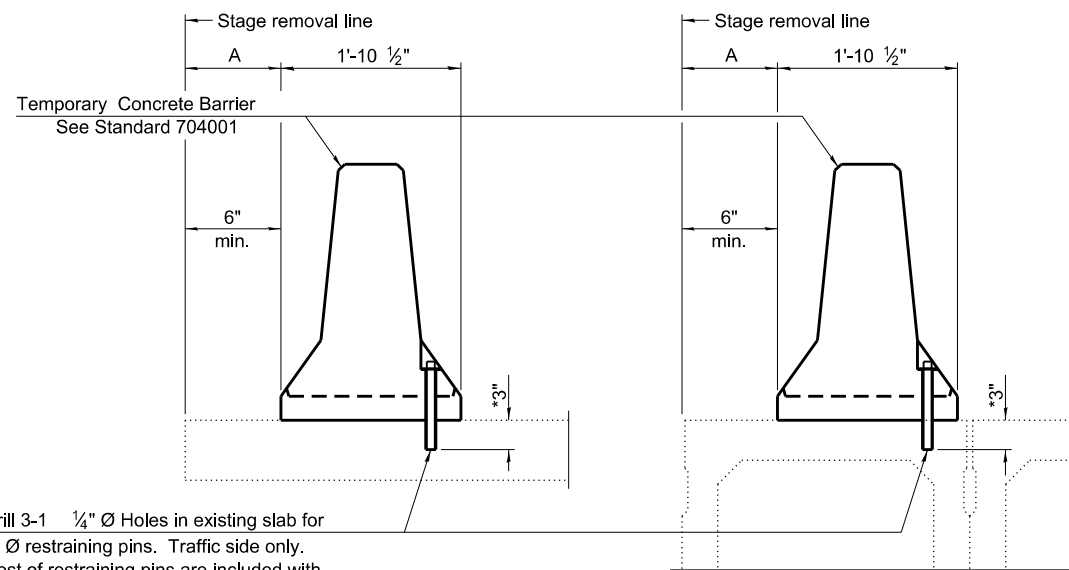
SHEET NO. 4 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	129
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM

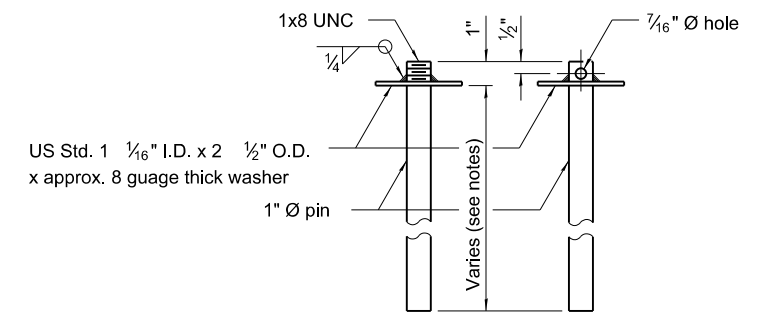


Drill 3-1 1/4" Ø Holes in existing slab for 1" Ø restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

EXISTING SLAB

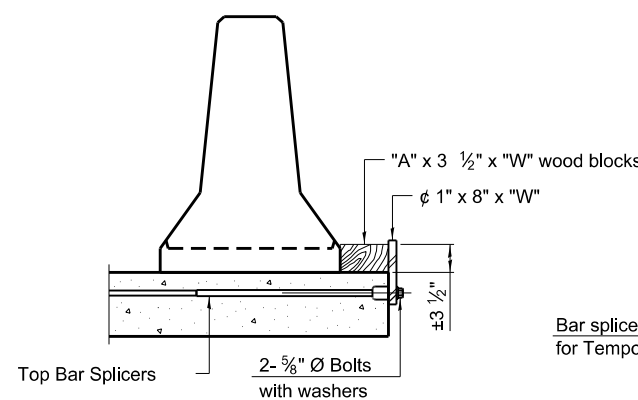
\* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

EXISTING DECK BEAM



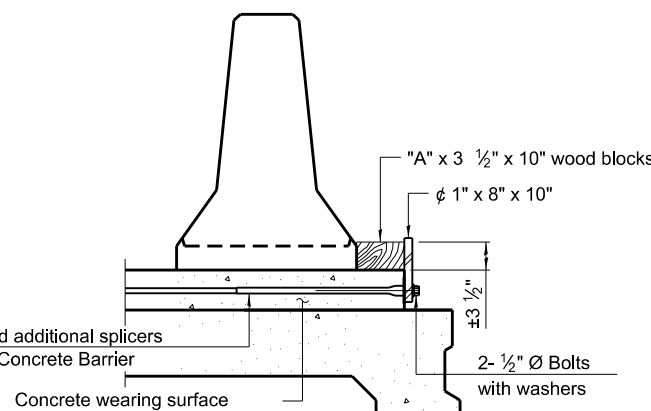
RESTRAINING PIN

SECTIONS THRU SLAB OR DECK BEAM

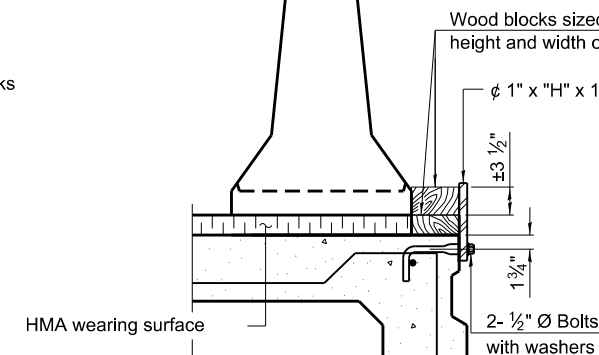


DETAIL I

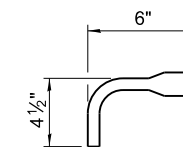
Bar splicers and additional splicers for Temporary Concrete Barrier



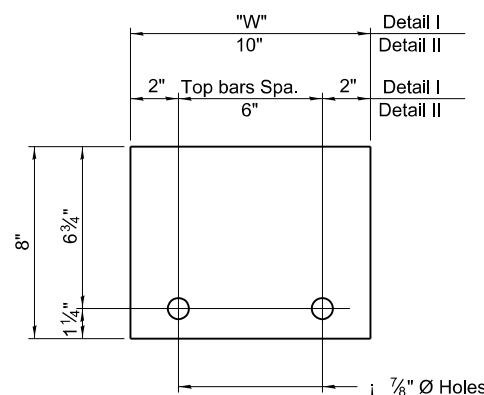
DETAIL II



DETAIL III

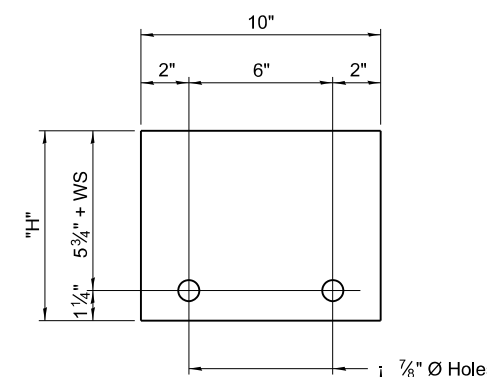


BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER  $\phi$  1" x 8" x "W"

(Detail I and II)



STEEL RETAINER  $\phi$  1" x "H" x 10"

(Detail III)

Notes:

- Cost of retainer assembly is included with Temporary Concrete Barrier.
- A retainer assembly shall be located at the approximate center of each temporary concrete barrier.
- The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
- When the 'A' dimension is less than 1 1/2', the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate.
- For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

- Detail I - Installation for a new bridge deck or bridge slab.
- Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
- Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

FILE NAME = Q:\Engineering\LiveProjects\13003 IDOT DURV\3003c - W0 3 Contract No. 60K73\CADD\CADD Sheets\Structural\016-2843-60K73-95-TEMPCONBAR.dgn

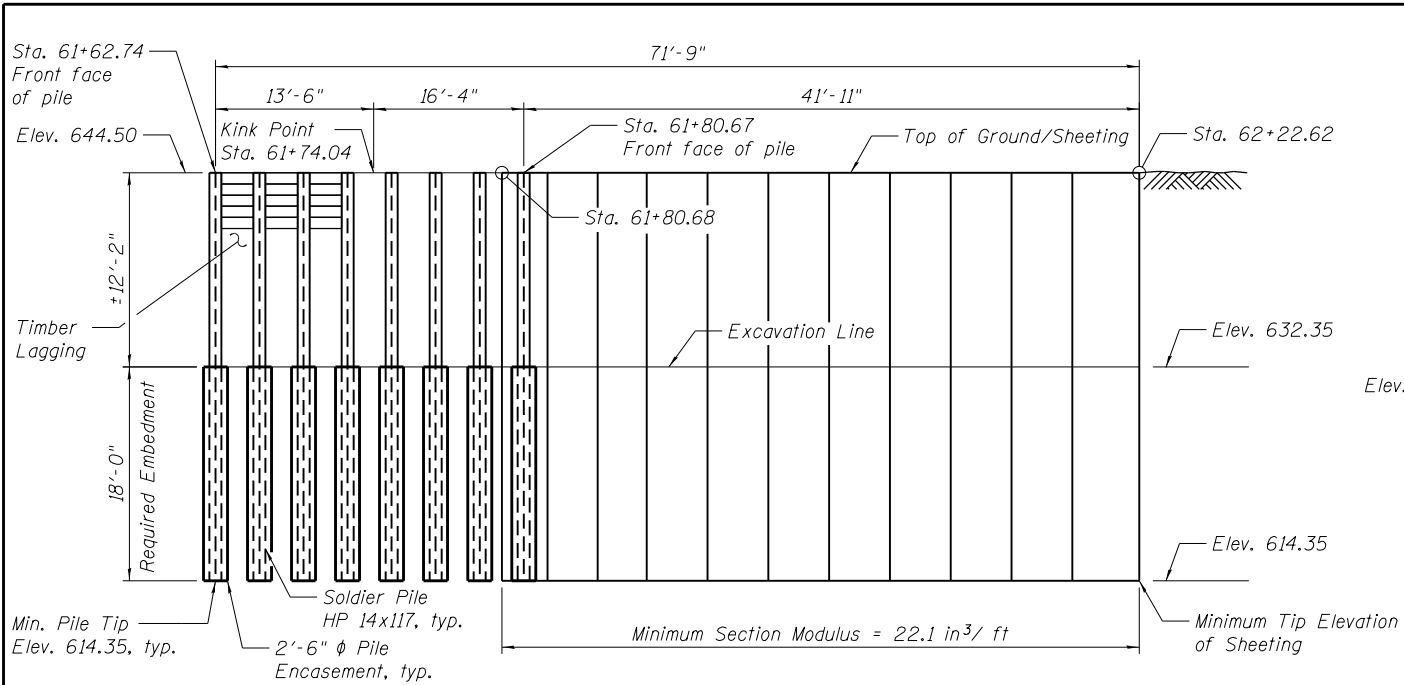


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	CHECKED - SPS	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

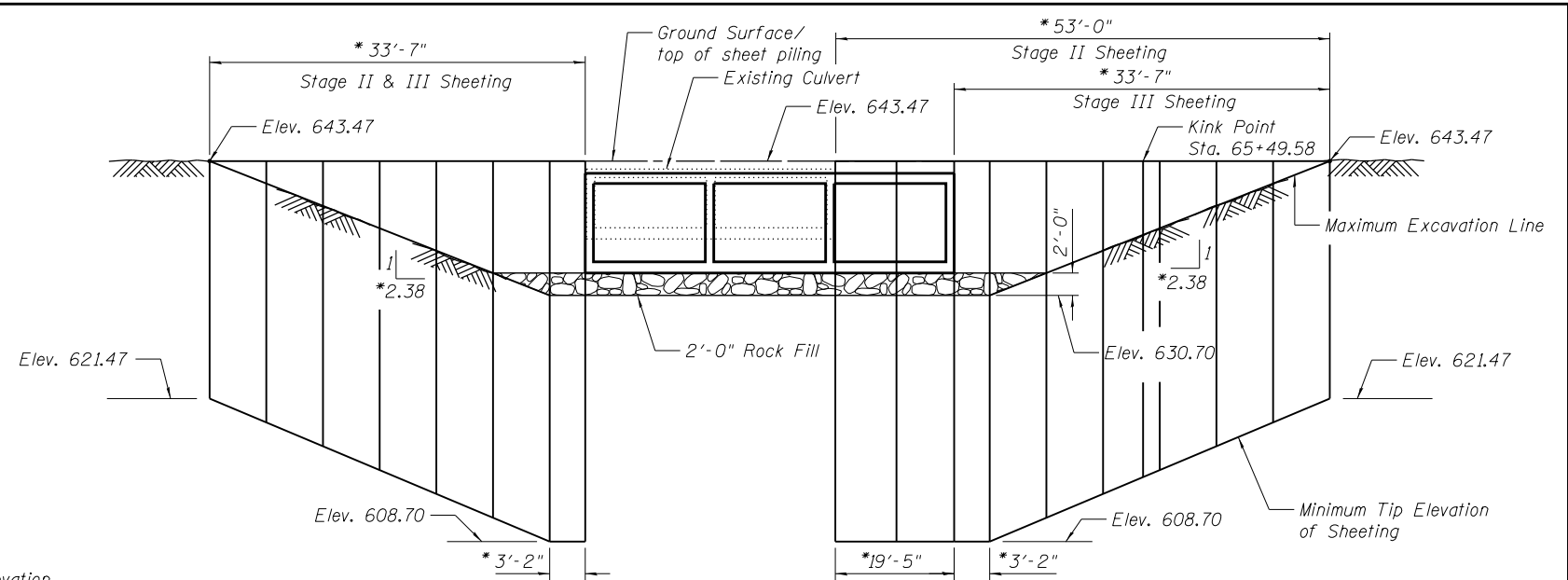
TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION  
STRUCTURE NO. 016-2849

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	130
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



**SOLDIER PILE RETAINING WALL AND TEMPORARY SHEET PILING  
ELEVATION- UPSTREAM END CULVERT**

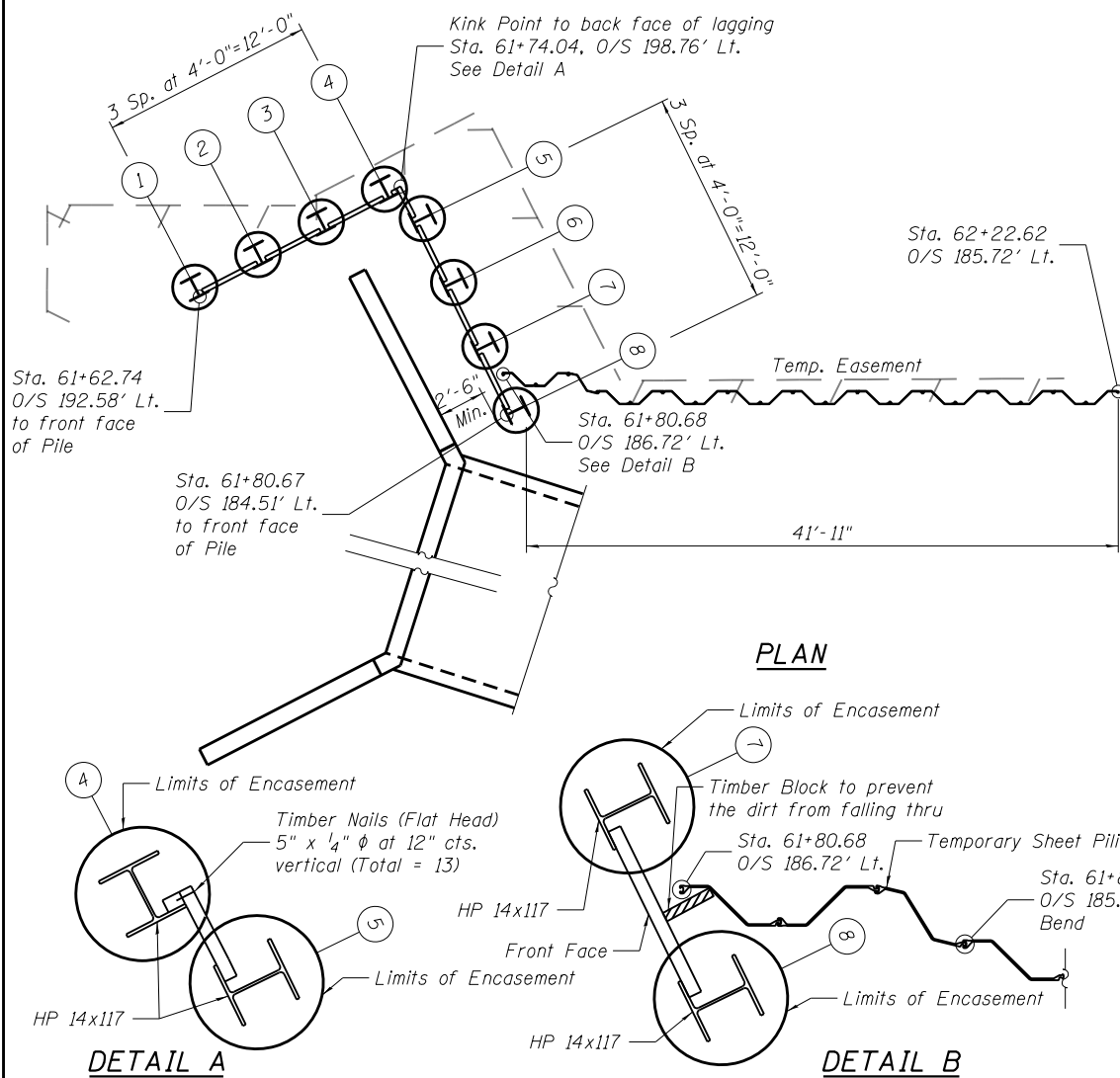
(Stationing along IL Rte. 50)



**TEMPORARY SHEET PILING DETAIL -  
IL RTE. 50 @ STAGE CONSTRUCTION LINE**

(Looking East)

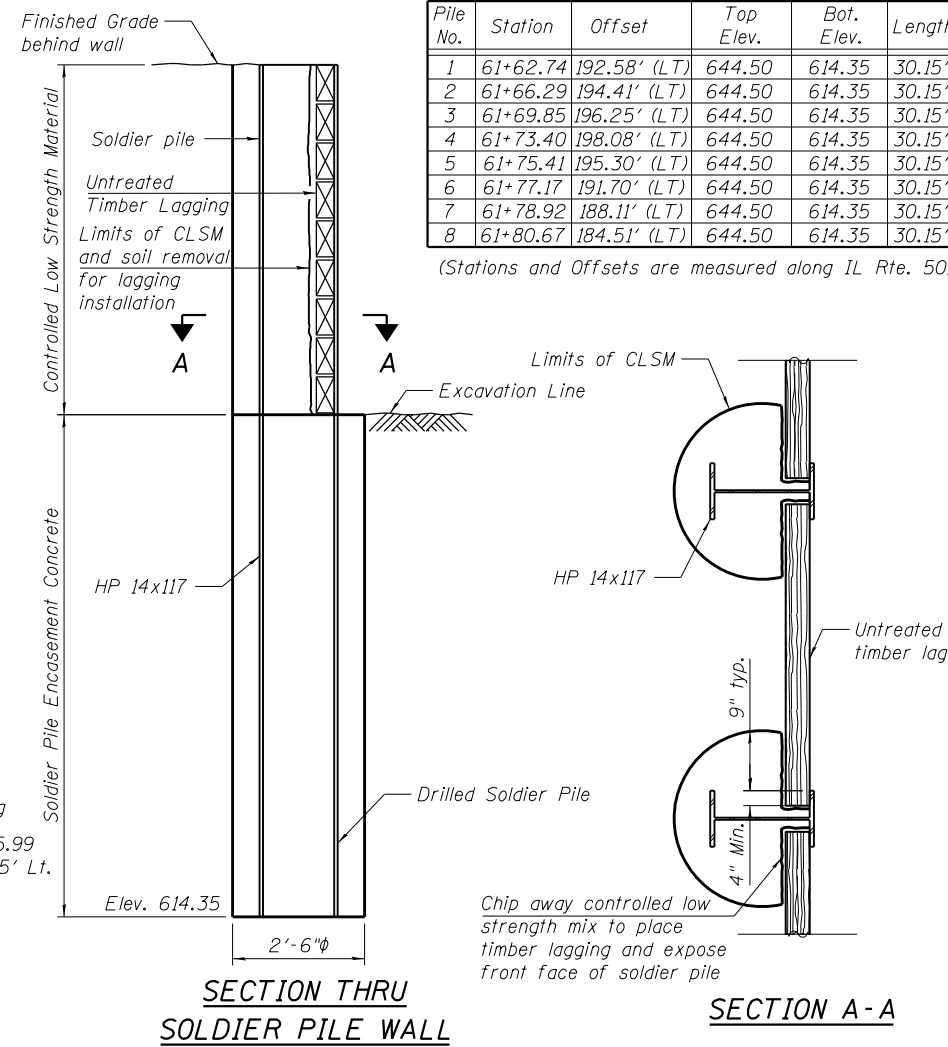
Minimum Section Modulus = 43.2 in<sup>3</sup>/ft  
\* Dimensions parallel to IL Rte. 50



**PLAN**

**DETAIL A**

**DETAIL B**



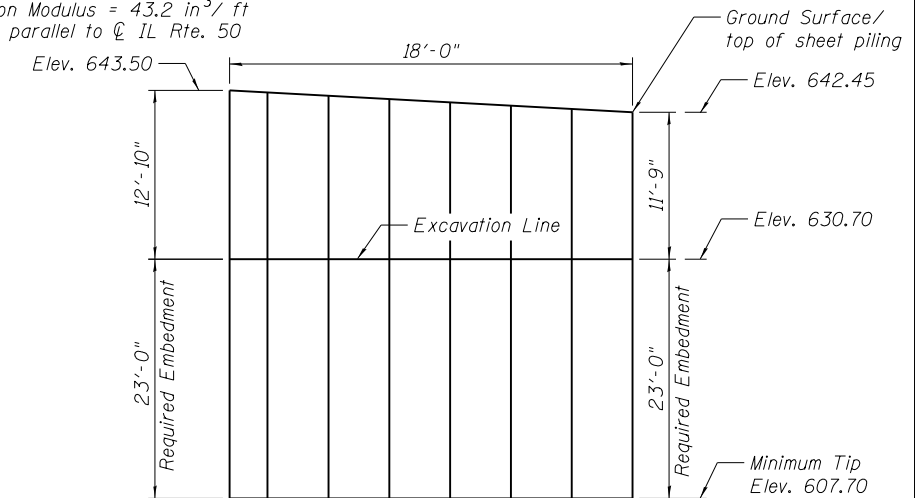
**SECTION THRU  
SOLDIER PILE WALL**

**SECTION A-A**

**SOLDIER PILE SCHEDULE**

Pile No.	Station	Offset	Top Elev.	Bot. Elev.	Length
1	61+62.74	192.58' (LT)	644.50	614.35	30.15'
2	61+66.29	194.41' (LT)	644.50	614.35	30.15'
3	61+69.85	196.25' (LT)	644.50	614.35	30.15'
4	61+73.40	198.08' (LT)	644.50	614.35	30.15'
5	61+75.41	195.30' (LT)	644.50	614.35	30.15'
6	61+77.17	191.70' (LT)	644.50	614.35	30.15'
7	61+78.92	188.11' (LT)	644.50	614.35	30.15'
8	61+80.67	184.51' (LT)	644.50	614.35	30.15'

(Stations and Offsets are measured along IL Rte. 50)



**TEMPORARY SHEET PILING ELEVATION-  
DOWNSTREAM SOUTH**

Minimum Section Modulus = 43.2 in<sup>3</sup>/ft

- NOTES:**
- If the Contractor chooses to alter the temporary sheet piling design requirements shown on the plans, a design submittal including plan details and calculations will be required for review and acceptance by the Engineer.
  - The Contractor is responsible for the design and performance of the lagging using no less than 3 in. nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi. Timber lagging shall conform to Article 507 and 107.03 of the Standard Specifications. (Cost of the timber Nails shall be included with the cost of Untreated Timber Lagging)
  - The drilled shaft dimensions shown are based of the presence of mostly cohesive soils. If the conditions encountered are different than those indicated, the Contractor shall notify the Engineer to determine if the foundation dimensions need to be modified.
  - Temporary Sheet Piling shall be installed after soldier piles are set in concrete encasement.
  - If the Contractor chooses to leave HP piles in place then it should be cut at least one foot below the finished ground surface or as directed by the Engineer.

**BILL OF MATERIAL**

ITEM	UNIT	TOTAL
Temporary Sheet Piling	Sq. Ft.	4522
Furnishing Soldier Piles (HP Section)	Foot	242
Drilling and Setting Soldier Piles (In Soil)	Cu. Ft.	1184
Untreated Timber Lagging	Sq. Ft.	298

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PLOT DATE = 6/13/2017	DRAWN - JN	REVISD
	CHECKED - SPS	REVISD

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SHEET PILING AND SOLDIER PILE WALL DETAILS  
STRUCTURE NO. 016-2849**

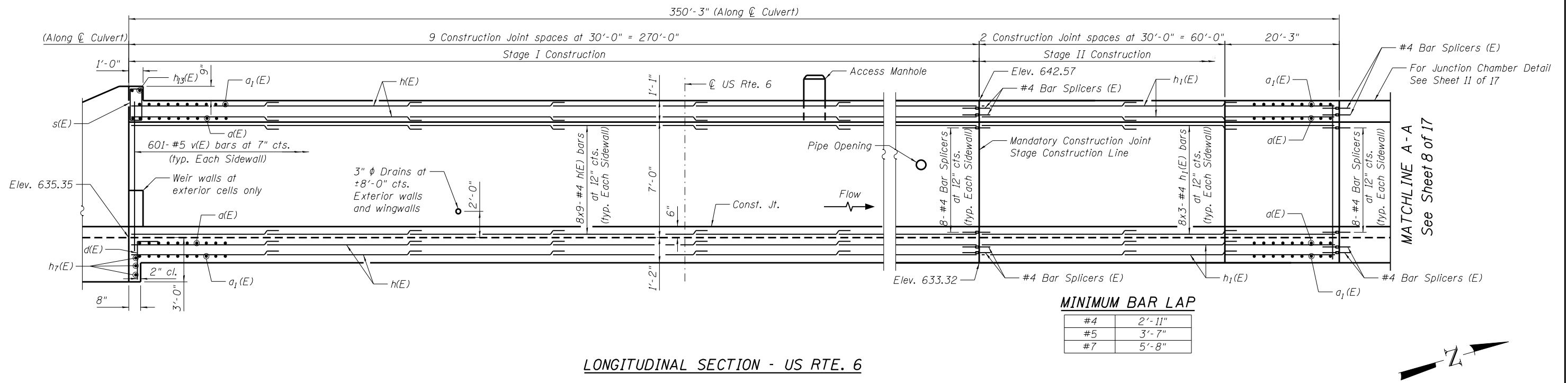
SHEET NO. 6 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1)	COOK	184	131
CONTRACT NO. 60K73				

ILLINOIS FED. AID PROJECT



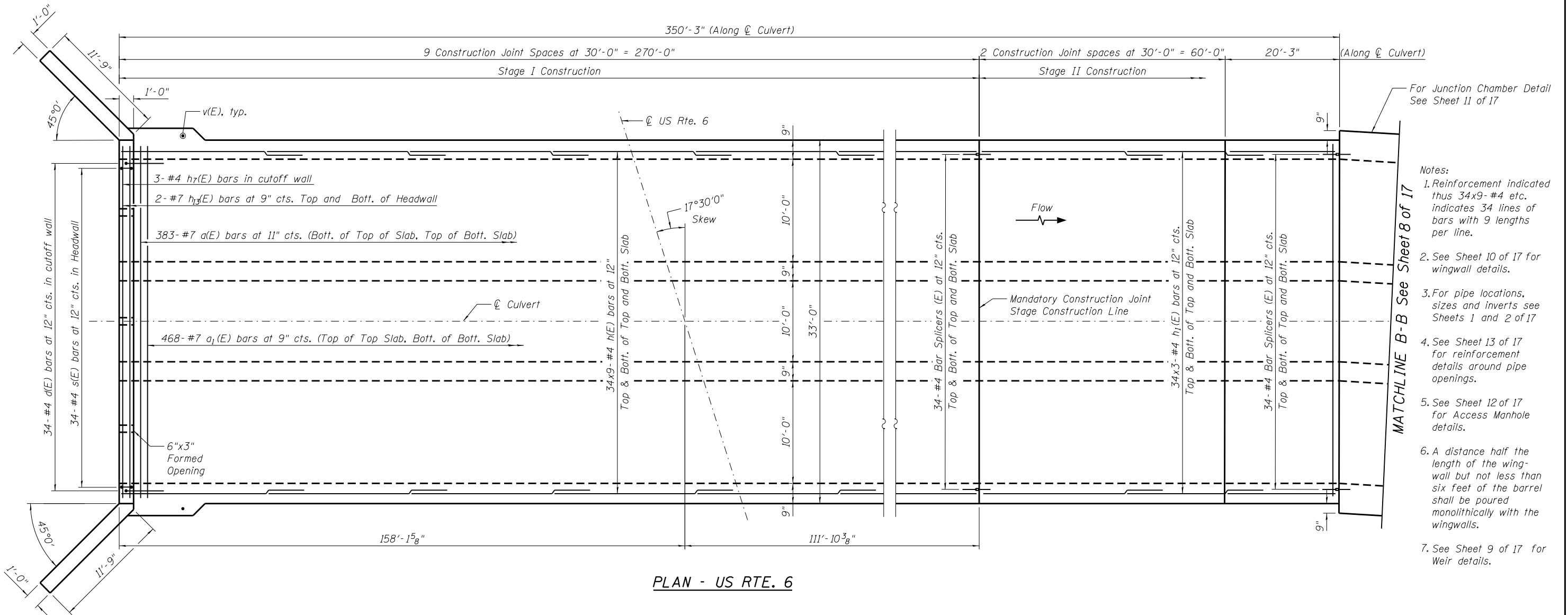
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LONGITUDINAL SECTION - US RTE. 6

MINIMUM BAR LAP

#4	2'-11"
#5	3'-7"
#7	5'-8"



PLAN - US RTE. 6

- Notes:
1. Reinforcement indicated thus 34x9-#4 etc. indicates 34 lines of bars with 9 lengths per line.
  2. See Sheet 10 of 17 for wingwall details.
  3. For pipe locations, sizes and inverts see Sheets 1 and 2 of 17
  4. See Sheet 13 of 17 for reinforcement details around pipe openings.
  5. See Sheet 12 of 17 for Access Manhole details.
  6. A distance half the length of the wing-wall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.
  7. See Sheet 9 of 17 for Weir details.



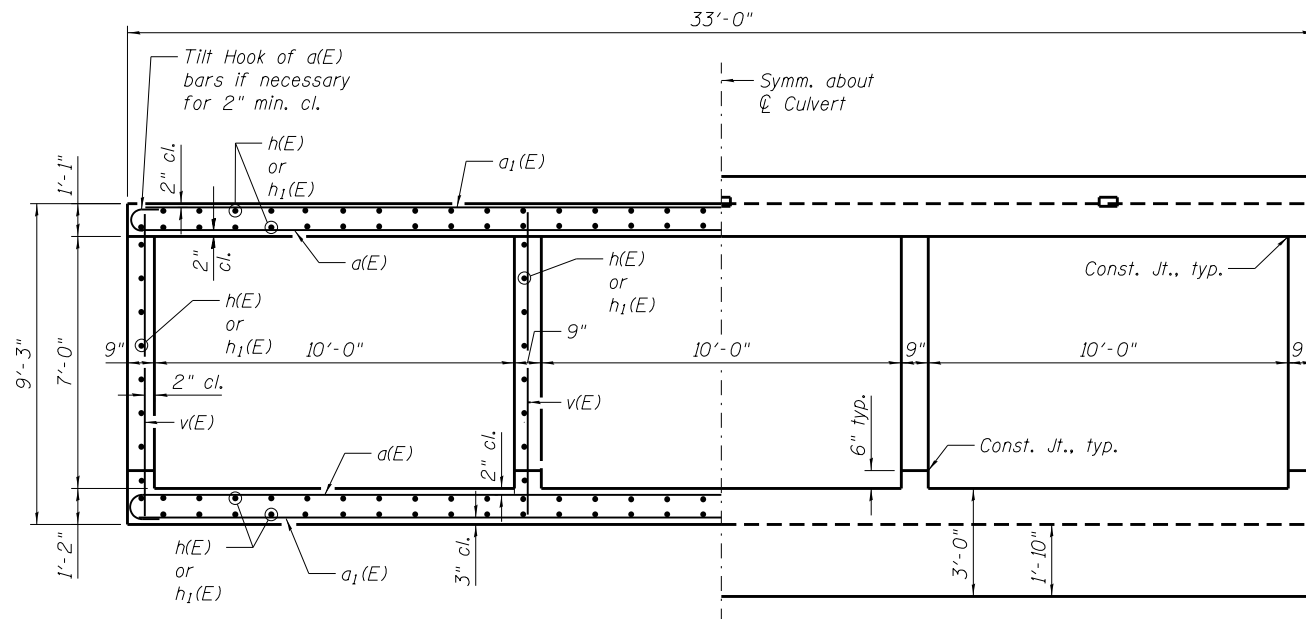
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PLOT DATE = 6/13/2017	DRAWN - JN	REVISIONS
	CHECKED - SPS	REVISIONS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CULVERT PLAN - US RTE. 6 (159TH ST.)  
STRUCTURE NO. 016-2849  
SHEET NO. 7 OF 17 SHEETS

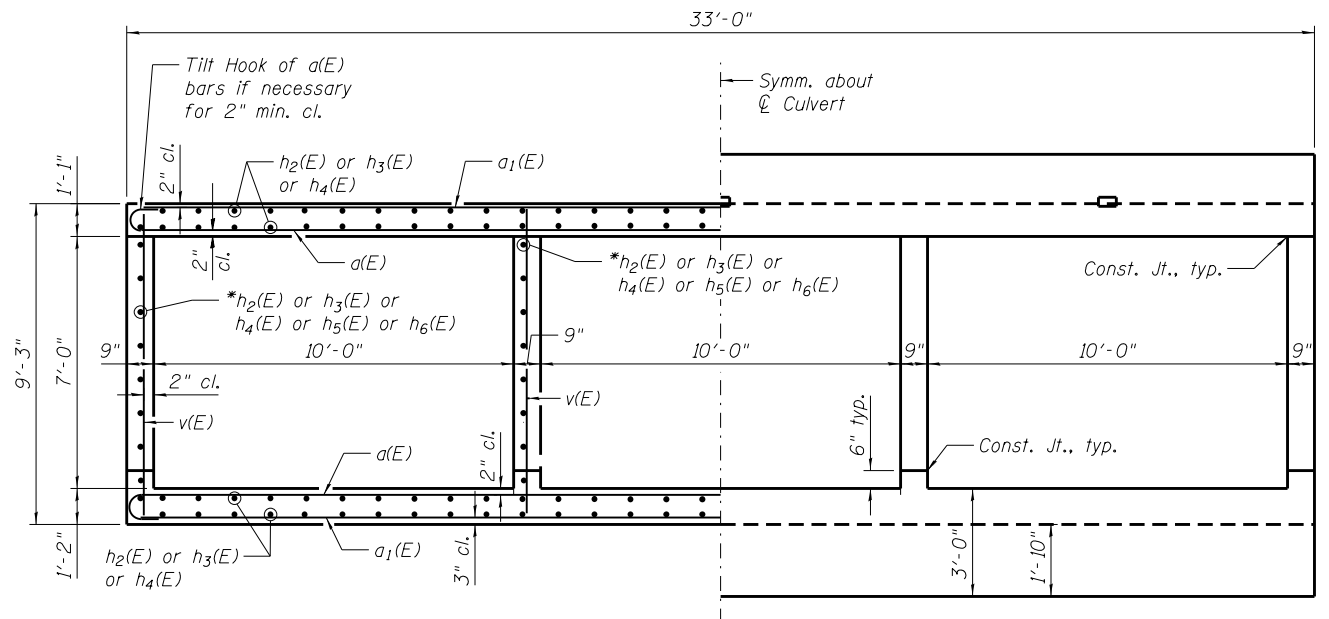
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351	(537 & 3277-Z/B-1)	COOK	184	132
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				





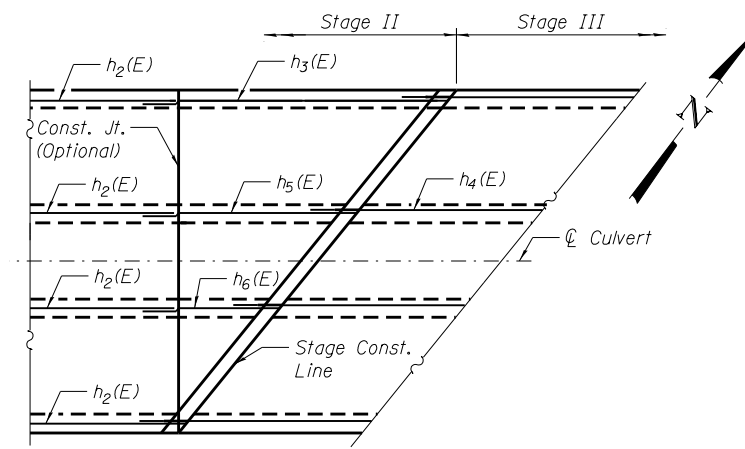
**HALF SECTION  
THRU BARREL-US RTE 6**

**HALF END ELEVATION-US RTE 6**

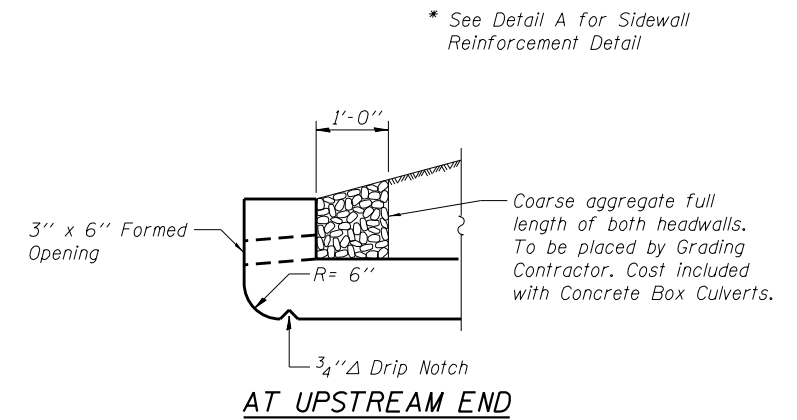


**HALF SECTION THRU BARREL  
IL RTE 50**

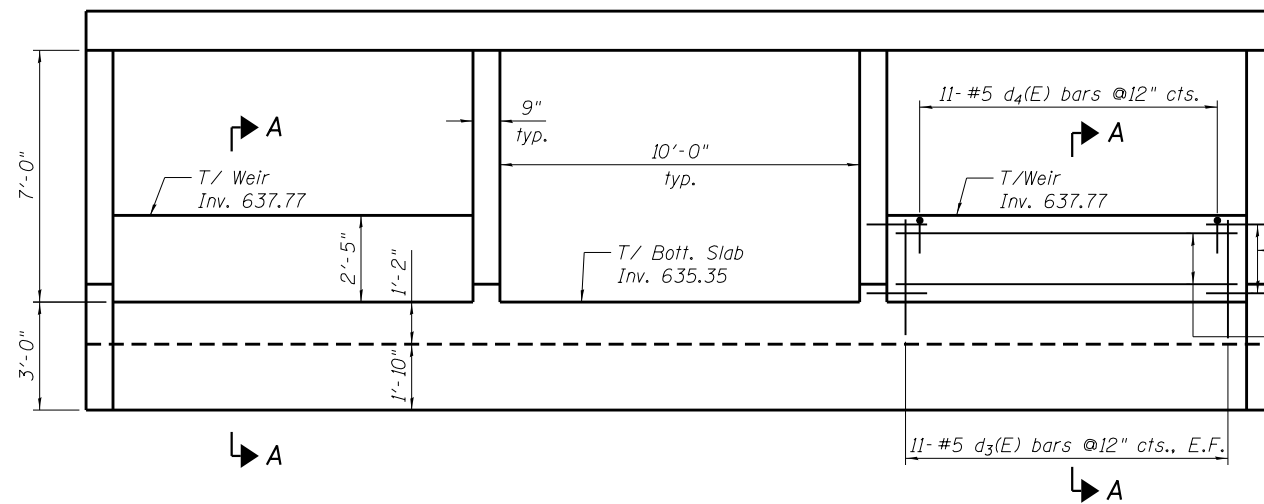
**HALF END ELEVATION-IL RTE 50**



**DETAIL A**



**AT UPSTREAM END**

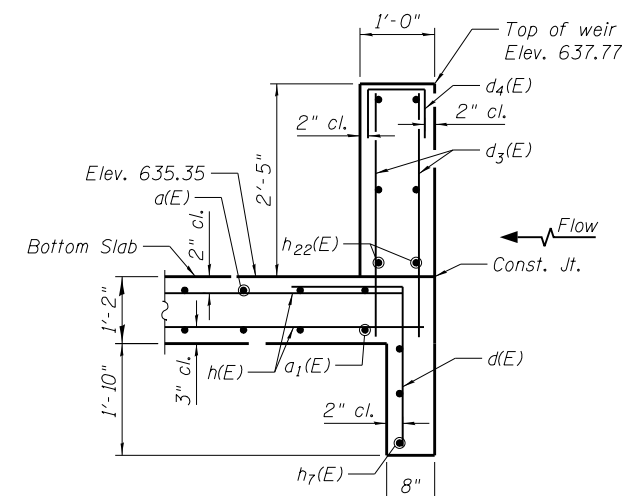


**WEIR ELEVATION  
(Upstream End Only)**

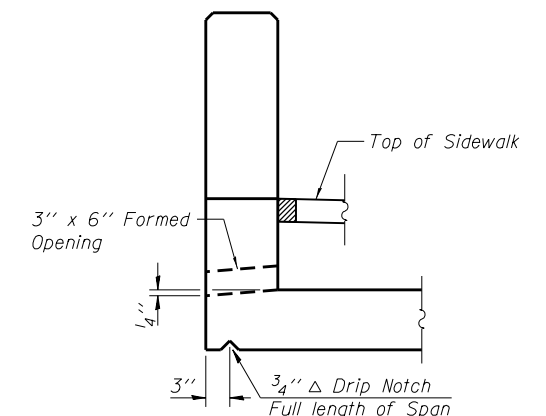
2-#4 d<sub>5</sub>(E) bars, E.F.,  
each side, top and  
bottom as shown

11-#5 d<sub>3</sub>(E) bars @ 12" cts., E.F.

E.F. Denotes each face



**SECTION A-A**



**AT DOWNSTREAM END**

**DRAIN DETAIL**

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**CULVERT BARREL SECTIONS AND WIER DETAILS  
STRUCTURE NO. 016-2849**

SHEET NO. 9 OF 17 SHEETS

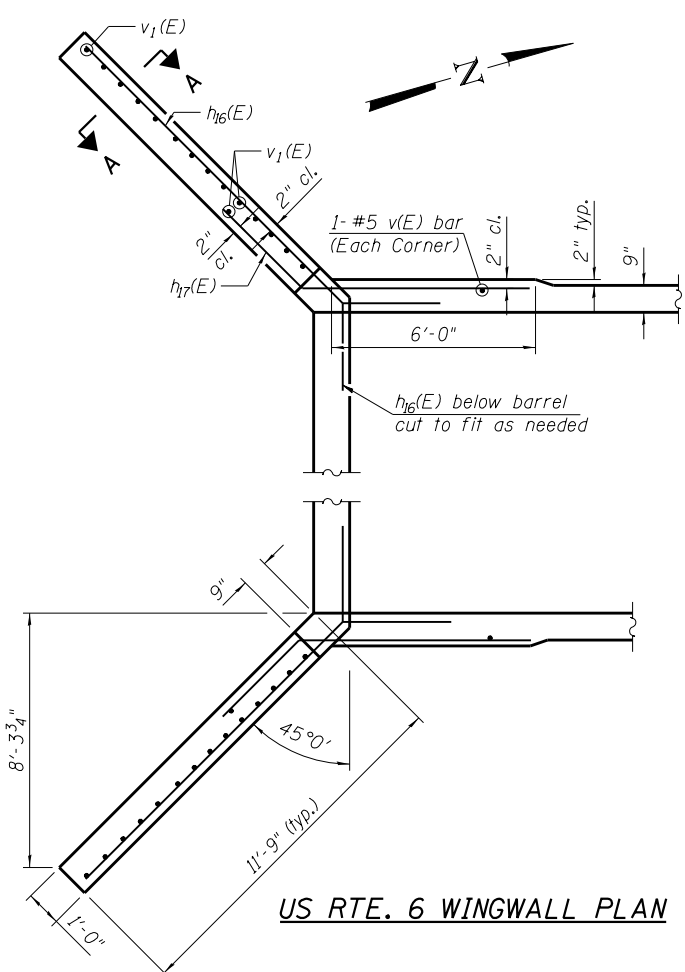
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1)	COOK	184	134
CONTRACT NO. 60K73				

ILLINOIS FED. AID PROJECT

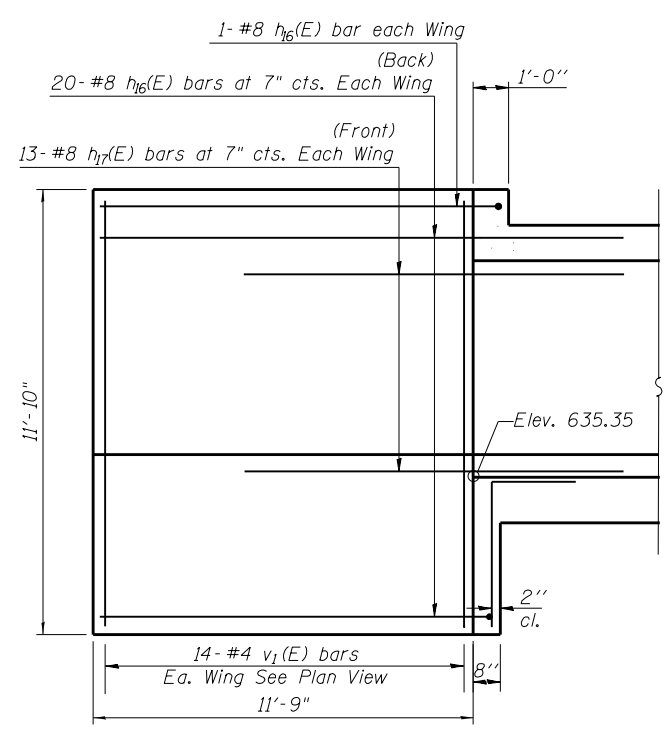


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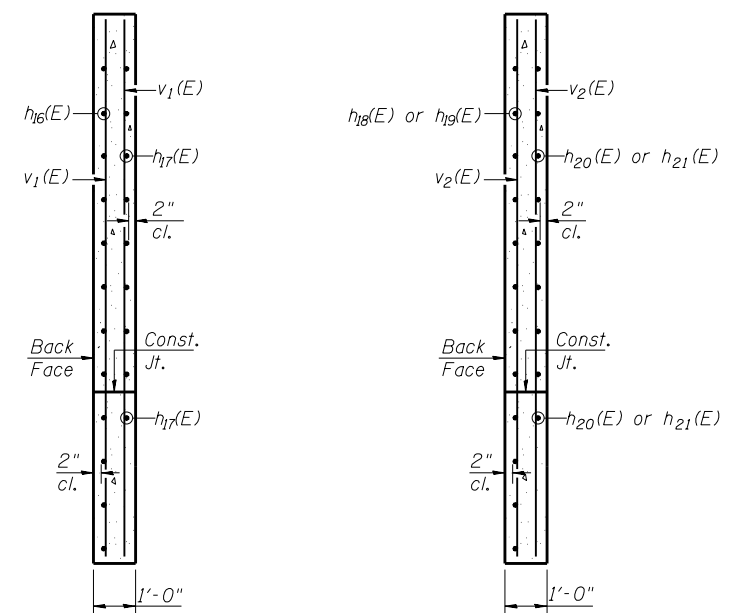
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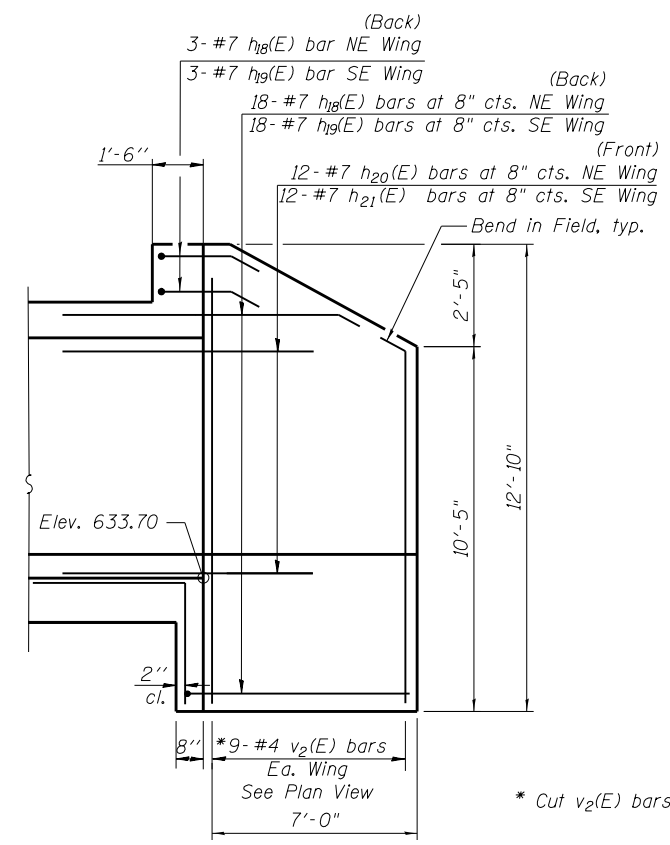
US RTE. 6 WINGWALL PLAN



US RTE. 6 WINGWALL ELEVATION

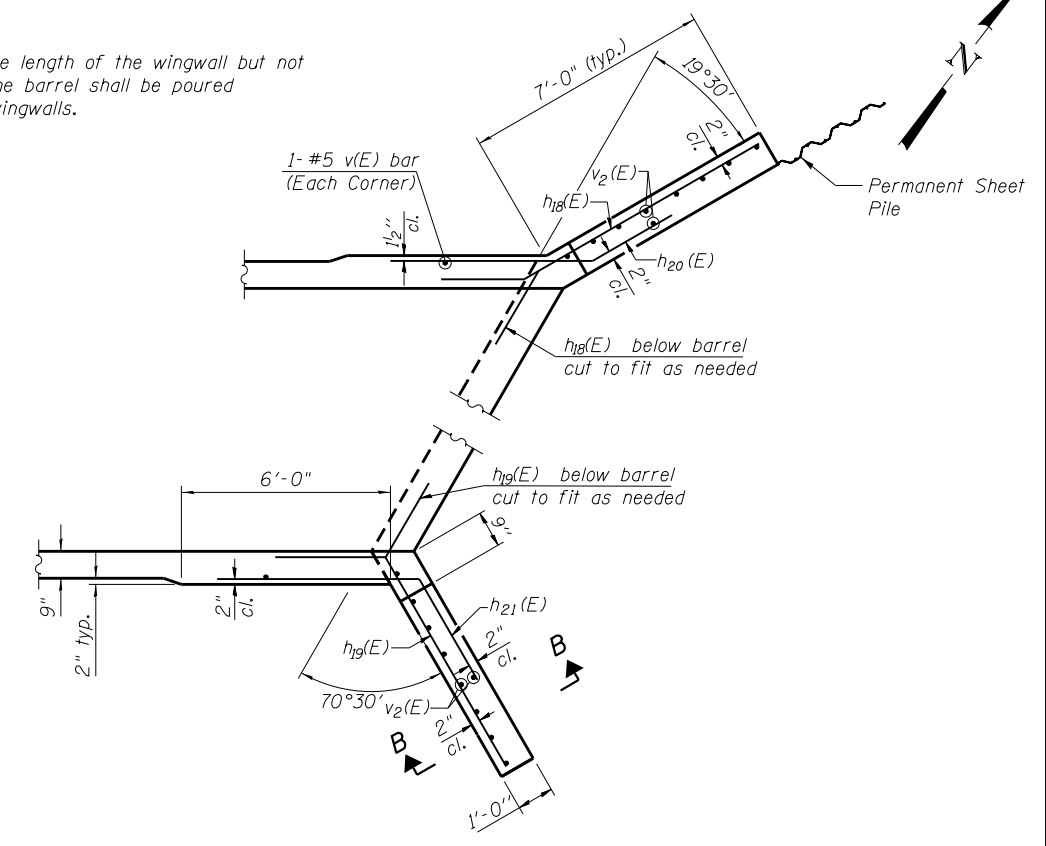


SECTION A-A SECTION B-B

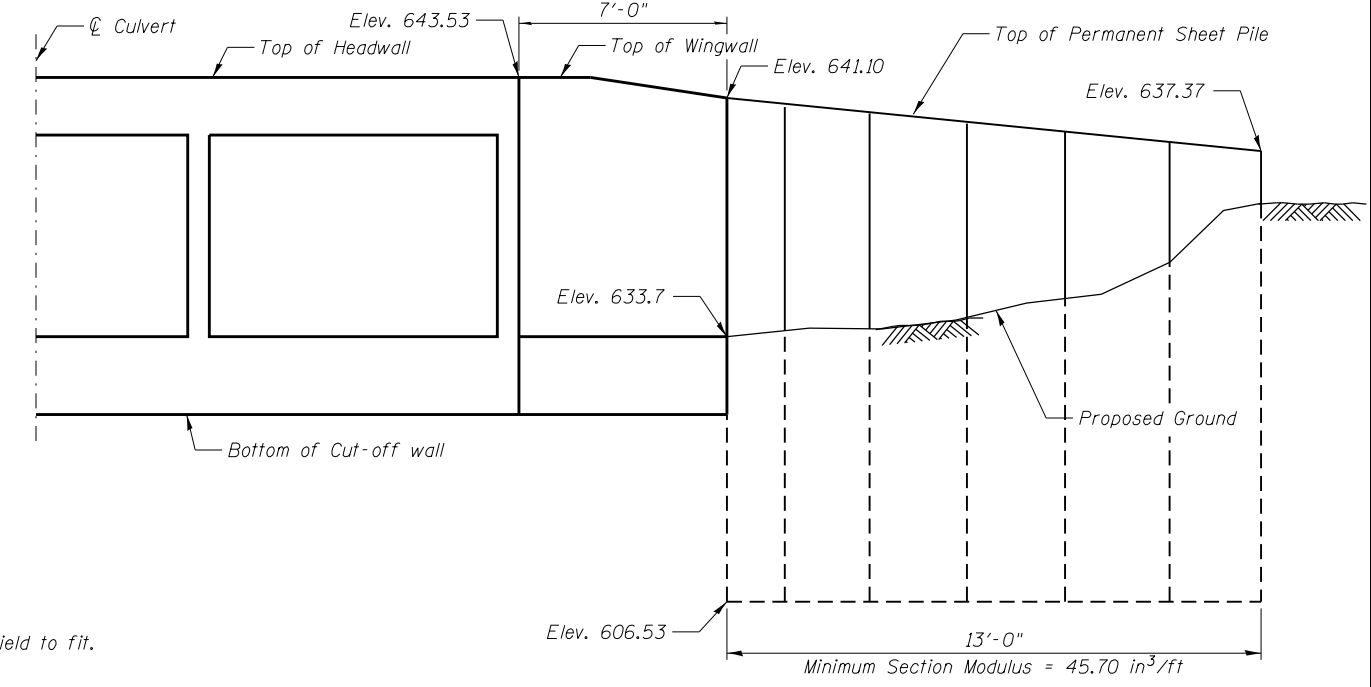


IL RTE. 50 WINGWALL ELEVATION

Notes:  
A distance of half the length of the wingwall but not less than six feet of the barrel shall be poured monolithically with the wingwalls.



IL RTE. 50 WINGWALL PLAN



PERMANENT SHEET PILE DEVELOPED ELEVATION

(Looking West)



USER NAME = johnn	DESIGNED - PP	REVISED
PLOT SCALE = 5/4" = 1'-0"	CHECKED - SPS	REVISED
PLOT DATE = 6/13/2017	DRAWN - JN	REVISED
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

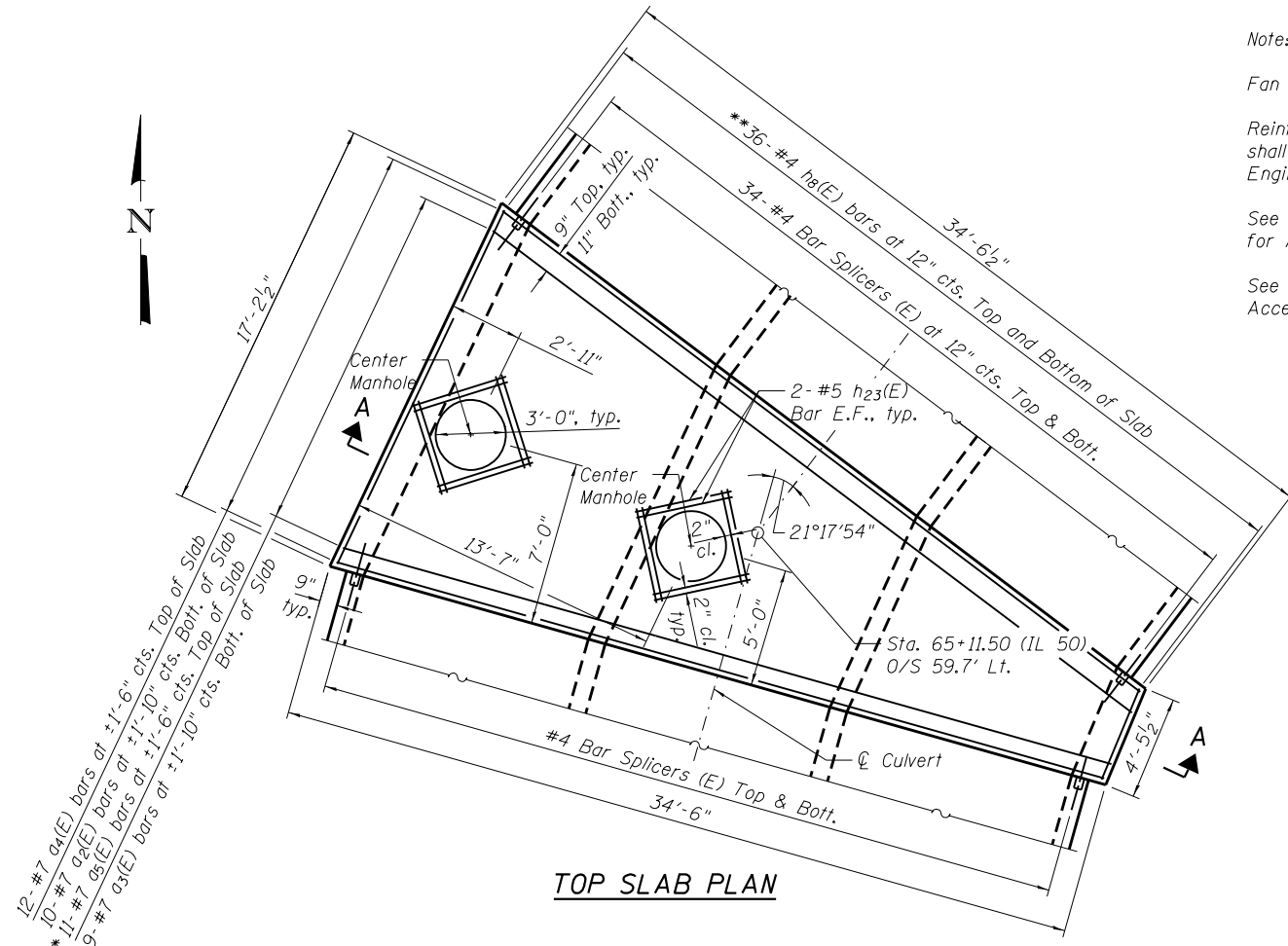
WINGWALL DETAILS  
STRUCTURE NO. 016-2849

SHEET NO. 10 OF 17 SHEETS

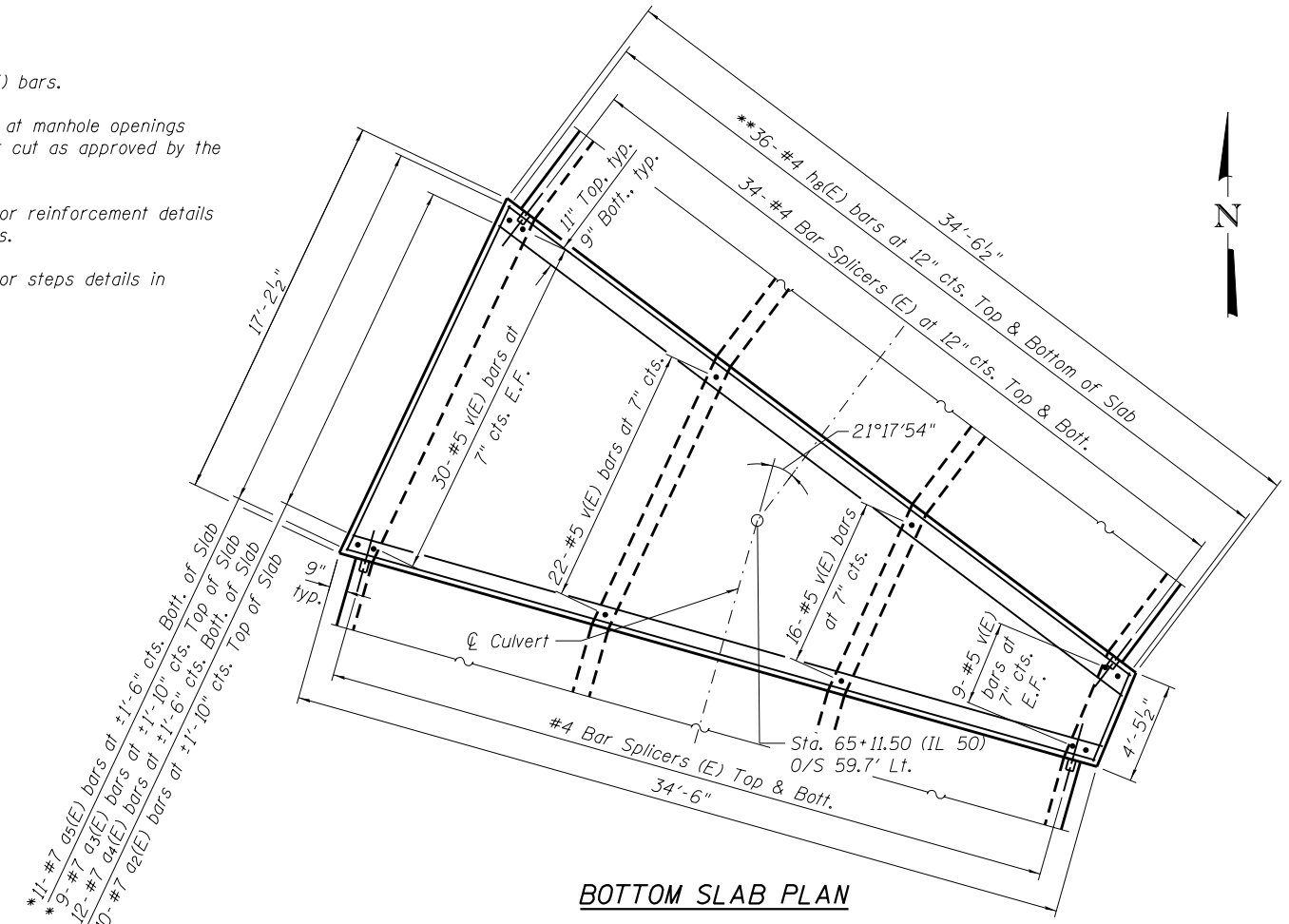
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1)	COOK	184	135
CONTRACT NO. 60K73				

ILLINOIS FED. AID PROJECT

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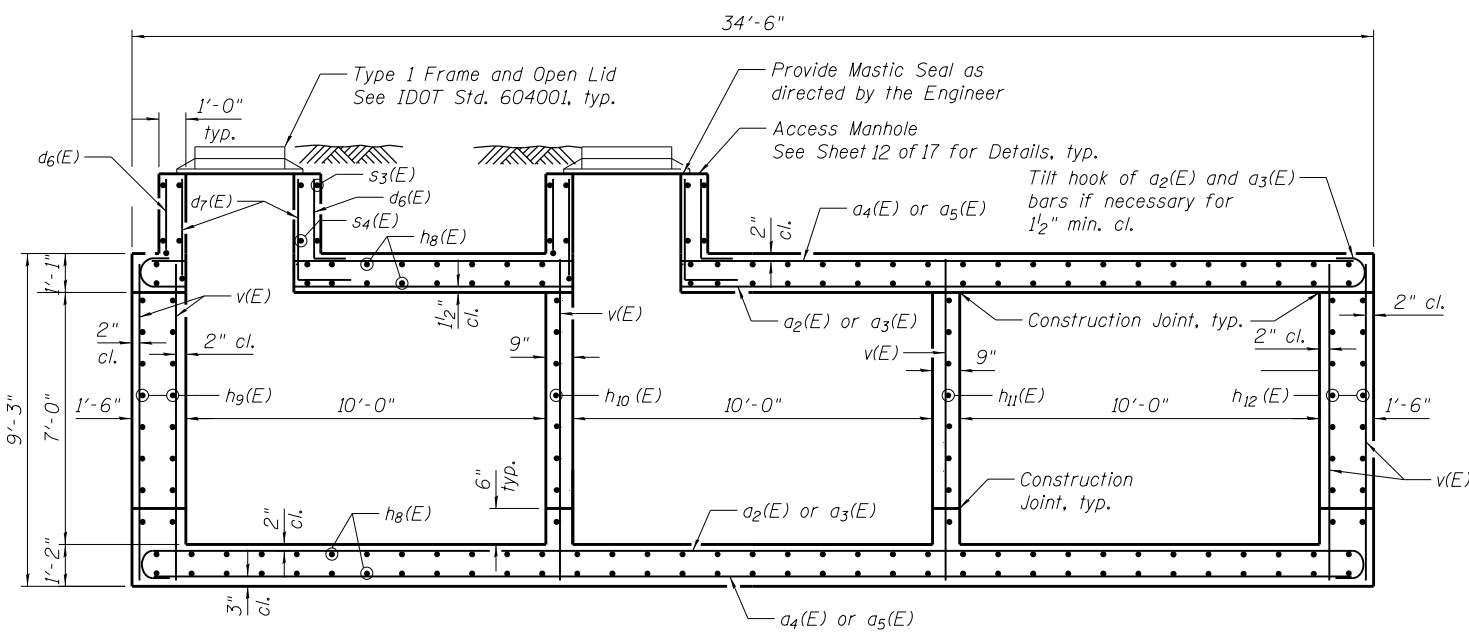
**TOP SLAB PLAN**



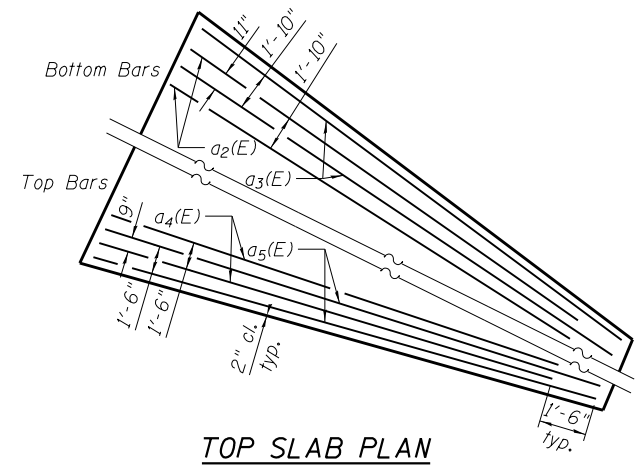
**BOTTOM SLAB PLAN**

Note:  
 Fan  $a_2(E)$  thru  $a_5(E)$  bars.  
 Reinforcement bars at manhole openings shall be adjusted or cut as approved by the Engineer.  
 See Sheet 12 of 17 for reinforcement details for Access Manholes.  
 See Sheet 12 of 17 for steps details in Access Manholes.

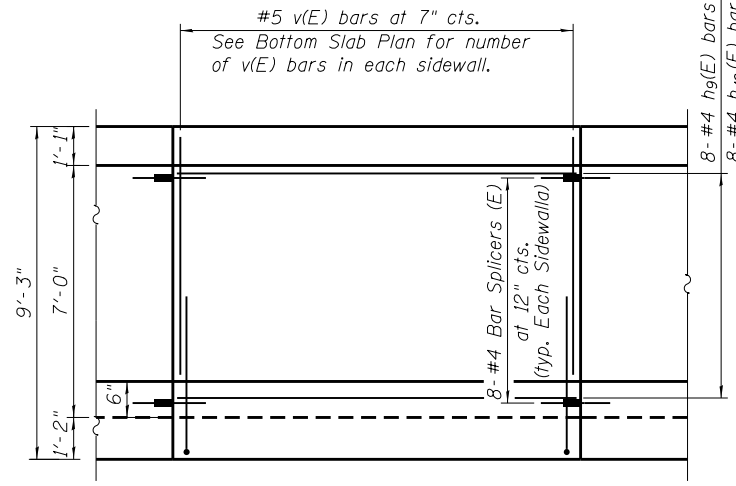
\* Alternate  $a_5(E)$  with  $a_4(E)$  bars and alternate  $a_3(E)$  with  $a_2(E)$  bars  
 \*\* See field cutting diagram on Sheet 13 of 17.



**SECTION A-A  
SECTION THRU JUNCTION CHAMBER**



**TOP SLAB PLAN**  
 Bars in the top slab are shown, bars in the bottom slab are mirrored.



**ELEVATION OF SIDEWALLS**  
 E.F. Denotes Each Face

8-#4  $h_8(E)$  bars at 12" cts. (E.F.)  
 8-#4  $h_{10}(E)$  bars at 12" cts.  
 8-#4  $h_{11}(E)$  bars at 12" cts.  
 8-#4  $h_{12}(E)$  bars at 12" cts. (E.F.)



USER NAME = johnn	DESIGNED - JW	REVISED
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**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

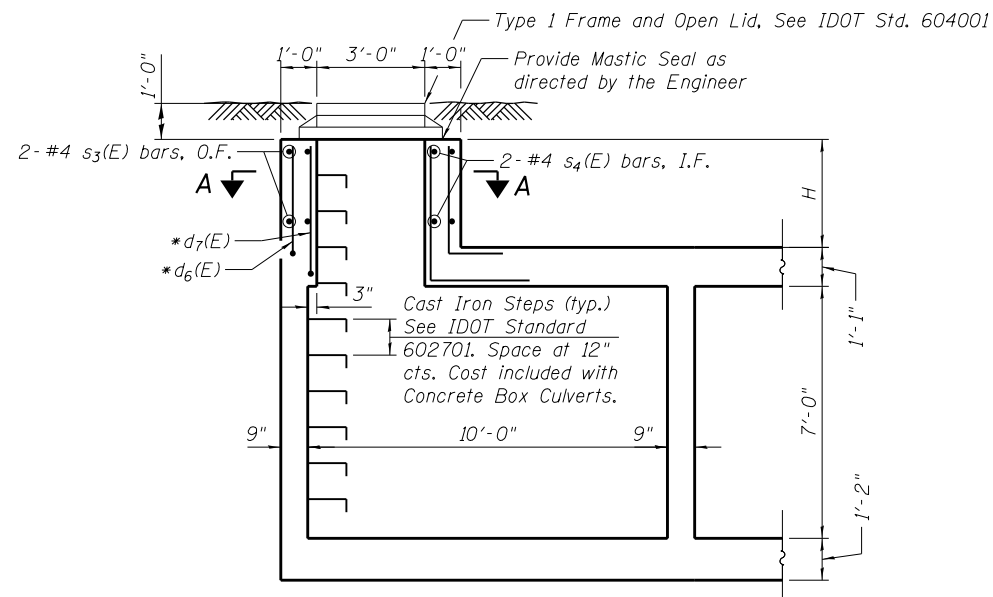
**JUNCTION CHAMBER DETAILS  
STRUCTURE NO. 016-2849**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60K73				

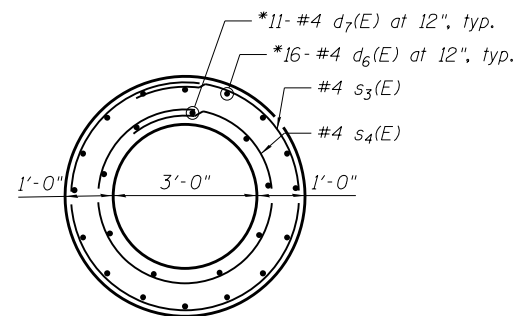
SHEET NO. 11 OF 17 SHEETS

ILLINOIS FED. AID PROJECT

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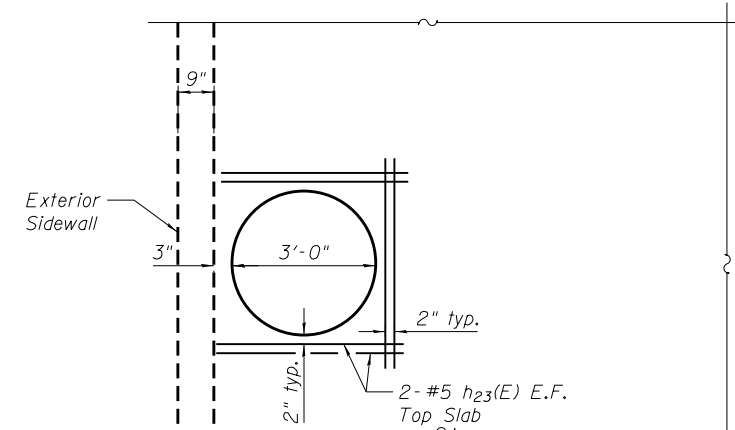


TYPICAL ACCESS MANHOLE DETAIL

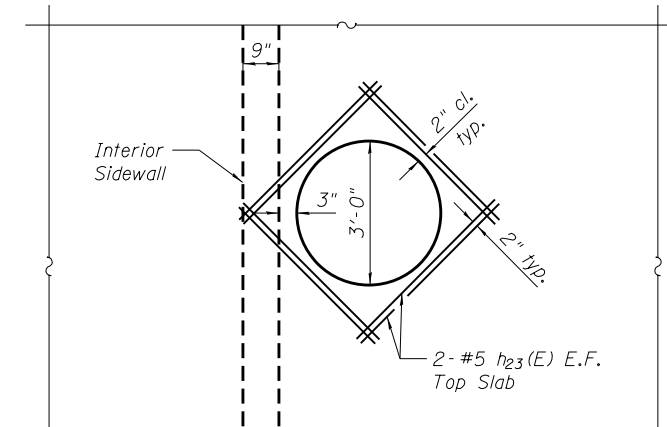


\* Fan d6(E) and d7(E) bars into top slab of the culvert near exterior sidewall. Cut bars in field to fit.

SECTION A-A



TOP SLAB REINFORCEMENT FOR MANHOLES C, F & L



TOP SLAB REINFORCEMENT FOR MANHOLES A, B, D, E, G, J & K

See Sheet 11 of 17 for reinforcement details around manhole H and manhole I.

ACCESS MANHOLE HEIGHT

No.	Height (H)	Rim Elevation
A	1'-4"	645.46
B	1'-1"	645.21
C	1'-2"	645.28
D	1'-6"	645.20
E	1'-6"	645.20
F	1'-6"	645.13
G	1'	644.20
H	1'-5"	644.70
I	1'-9"	645.00
J	6"	643.48
K	6"	643.44
L	5"	643.40

ACCESS MANHOLE SCHEDULE

No.	Station (IL-50)	Offset
A	62+52.42	134.65' (LT)
B	62+55.57	144.93' (LT)
C	62+58.86	155.20' (LT)
D	64+00.19	87.40' (LT)
E	64+03.43	97.68' (LT)
F	64+06.54	107.97' (LT)
G	64+99.87	55.94' (LT)
H	65+11.03	62.69' (LT)
I	65+16.12	72.02' (LT)
J	65+75.57	1.66' (RT)
K	65+92.08	1.02' (RT)
L	66+08.46	0.54' (RT)

O.F. Denotes Outside Face  
I.F. Denotes Inside Face  
E.F. Denotes Each Face



USER NAME = johnn	DESIGNED - SAT	REVISED
	CHECKED - SPS	REVISED
PLOT SCALE = 5/4" = 1' / in.	DRAWN - JN	REVISED
PLOT DATE = 6/13/2017	CHECKED - SPS	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

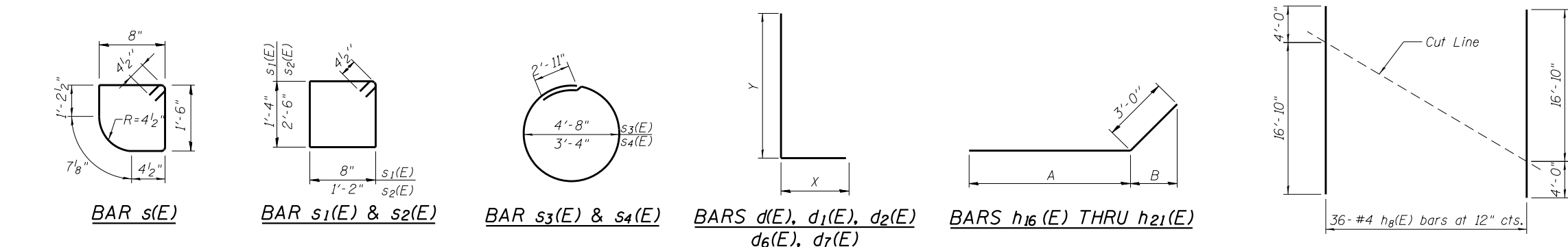
ACCESS MANHOLE DETAILS  
STRUCTURE NO. 016-2849

SHEET NO. 12 OF 17 SHEETS

F.A.P. RFE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	137
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

**BILL OF MATERIAL**

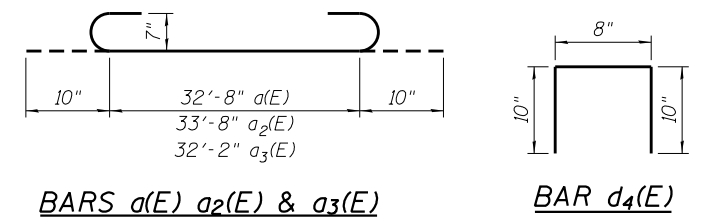
Bar	No.	Size	Length	Shape
a(E)	1109	#7	34'-4"	U
a <sub>1</sub> (E)	1355	#7	32'-8"	U
a <sub>2</sub> (E)	20	#7	35'-4"	U
a <sub>3</sub> (E)	18	#7	33'-10"	U
a <sub>4</sub> (E)	24	#7	34'-0"	U
a <sub>5</sub> (E)	22	#7	32'-6"	U
d(E)	88	#4	4'-6"	U
d <sub>1</sub> (E)	54	#5	6'-10"	U
d <sub>2</sub> (E)	54	#4	7'-6"	U
d <sub>3</sub> (E)	44	#5	3'-3"	U
d <sub>4</sub> (E)	22	#4	2'-4"	U
d <sub>5</sub> (E)	16	#4	1'-6"	U
d <sub>6</sub> (E)	192	#4	3'-0"	U
d <sub>7</sub> (E)	132	#4	3'-9"	U
h(E)	1512	#4	32'-11"	U
h <sub>1</sub> (E)	504	#4	28'-9"	U
h <sub>2</sub> (E)	336	#4	34'-11"	U
h <sub>3</sub> (E)	76	#4	43'-8"	U
h <sub>4</sub> (E)	336	#4	35'-8"	U
h <sub>5</sub> (E)	8	#4	30'-1"	U
h <sub>6</sub> (E)	8	#4	16'-10"	U
h <sub>7</sub> (E)	3	#4	32'-8"	U
h <sub>8</sub> (E)	72	#4	20'-10"	U
h <sub>9</sub> (E)	16	#4	16'-9"	U
h <sub>10</sub> (E)	8	#4	12'-6"	U
h <sub>11</sub> (E)	8	#4	8'-6"	U
h <sub>12</sub> (E)	16	#4	4'-1"	U
h <sub>13</sub> (E)	4	#7	32'-8"	U
h <sub>14</sub> (E)	24	#8	29'-10"	U
h <sub>15</sub> (E)	12	#7	29'-1"	U
h <sub>16</sub> (E)	42	#8	15'-4"	U
h <sub>17</sub> (E)	26	#8	8'-0"	U
h <sub>18</sub> (E)	21	#7	12'-1"	U
h <sub>19</sub> (E)	21	#7	12'-1"	U
h <sub>20</sub> (E)	12	#7	8'-0"	U
h <sub>21</sub> (E)	12	#7	8'-0"	U
h <sub>22</sub> (E)	12	#4	9'-8"	U
h <sub>23</sub> (E)	180	#5	4'-0"	U
h <sub>24</sub> (E)	48	#5	3'-6"	U
h <sub>25</sub> (E)	8	#5	4'-6"	U
h <sub>26</sub> (E)	16	#5	7'-0"	U
h <sub>27</sub> (E)	30	#4	27'-7"	U
s(E)	34	#4	5'-1"	U
s <sub>1</sub> (E)	108	#4	4'-9"	U
s <sub>2</sub> (E)	54	#4	8'-1"	U
s <sub>3</sub> (E)	24	#4	17'-7"	U
s <sub>4</sub> (E)	24	#4	13'-5"	U
v(E)	3594	#5	8'-11"	U
v <sub>1</sub> (E)	28	#4	11'-6"	U
v <sub>2</sub> (E)	18	#4	12'-6"	U
Permanent Sheet Piling	Sq. Ft.		426	
Reinforcement Bars, Epoxy Coated	Pound		281,940	
Concrete Box Culverts	Cu. Yd.		1866.2	
Concrete Sealer	Sq. Ft.		263	



Bar	X	Y
d(E)	1'-9"	2'-9"
d <sub>1</sub> (E)	10"	6'-0"
d <sub>2</sub> (E)	1'-6"	6'-0"
d <sub>6</sub> (E)	1'-6"	1'-6"
d <sub>7</sub> (E)	1'-6"	2'-3"

**FIELD CUTTING DIAGRAM BARS h<sub>8</sub>(E)**

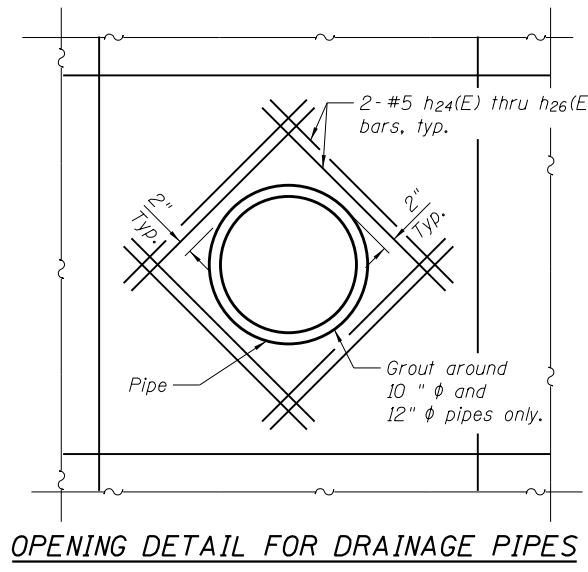
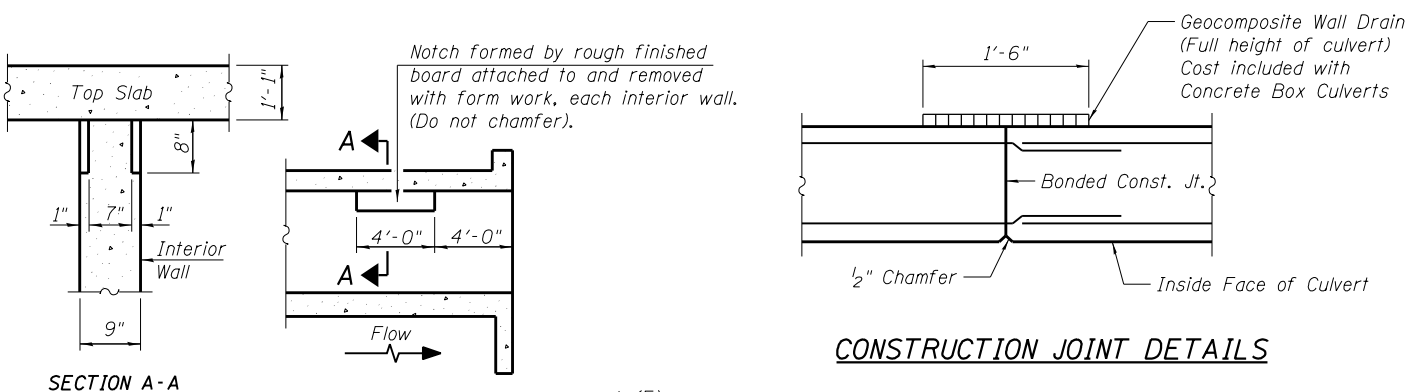
Order h<sub>8</sub>(E) bars in full length, cut as shown and use the remained bars in bottom slab.



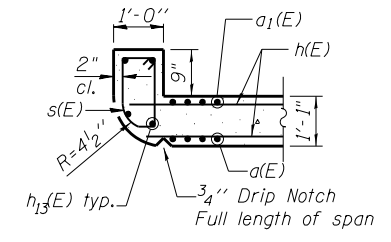
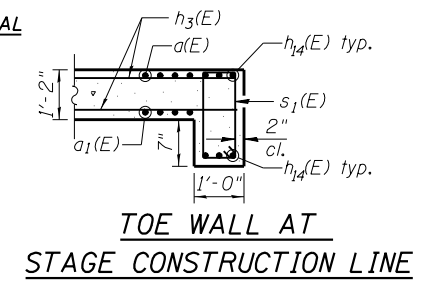
**DRAINAGE PIPE SCHEDULE**

No.	Pipe Dia.	Invert Elev.	Bar
P-7	12"	640.10	h <sub>24</sub> (E)
P-8	24"	Match Exist.	h <sub>25</sub> (E)
P-10	12"	639.80	h <sub>24</sub> (E)
P-11	60"	635.80	h <sub>26</sub> (E)
P-12	12"	639.10	h <sub>24</sub> (E)
P-13	12"	639.40	h <sub>24</sub> (E)
P-14	12"	639.10	h <sub>24</sub> (E)
P-15	54"	635.00	h <sub>26</sub> (E)
P-16	12"	637.29	h <sub>24</sub> (E)

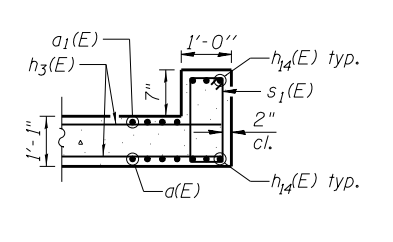
See Sheets 1 and 2 of 17 for Location of Pipes. Reinforcement bars at pipe opening shall be adjusted or cut as approved by the Engineer.



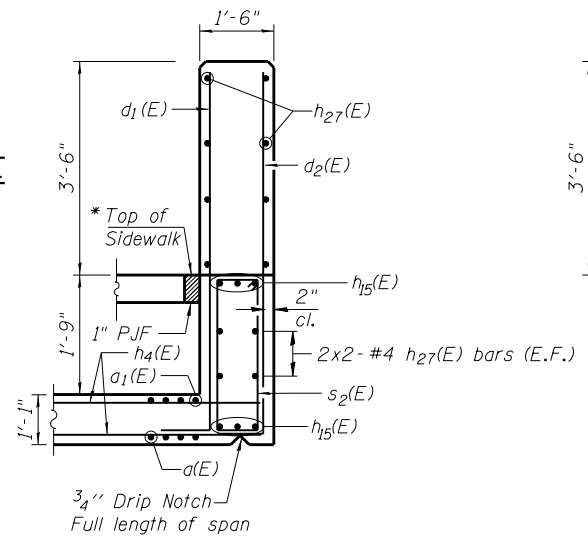
**PHOEBE NESTING SITE DETAILS (Downstream End Only)**



**UPSTREAM HEADWALL**



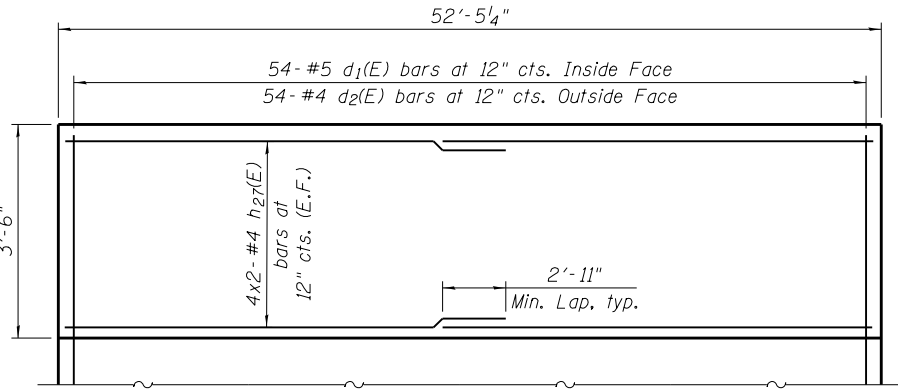
**STAGE CONSTRUCTION LINE**



**DOWNSTREAM END HEADWALL**

\* Cost of PJF is included in the cost of Concrete Box Culverts.

E.F. denotes Each Face.



**BARRIER WALL ELEVATION**

Reinforcement bars indicated thus 4x2-#4 etc. indicates 4 lines of bars with 2 lengths per line.

FILE NAME = Q:\Engineering\Live\Projects\13003 IDOT DURV13003c - W0 3 Contract No. 60K73(CADD)\CADD Sheets\Structural\016-2843-60K73-13-Reinforce Details Bill of Mat.dgn



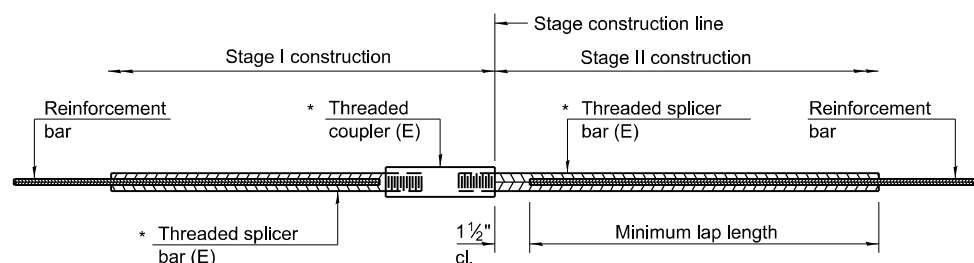
USER NAME = johnn	DESIGNED - AB	REVISED
PLOT SCALE = 0.2" = 1'-0"	CHECKED - SPS	REVISED
PLOT DATE = 7/13/2017	DRAWN - JN	REVISED
	CHECKED - SPS	REVISED

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

**CULVERT AND REINFORCING DETAILS STRUCTURE NO. 016-2849**

SHEET NO. 13 OF 17 SHEETS

F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	138
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

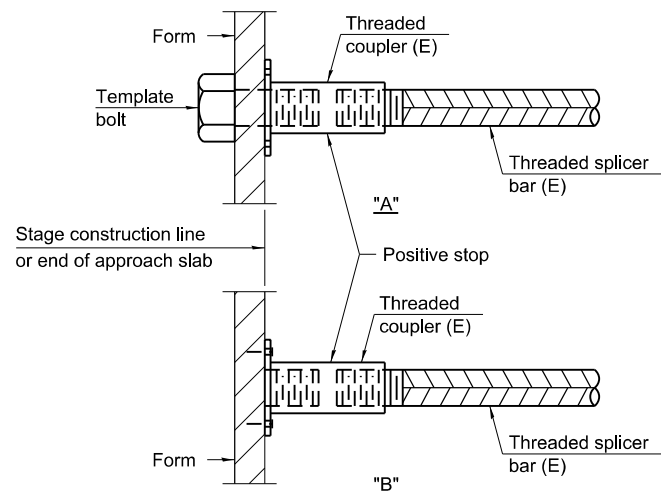


**STANDARD BAR SPLICER ASSEMBLY**

Threaded splicer bar length = min. lap length + 1 1/2" + thread length

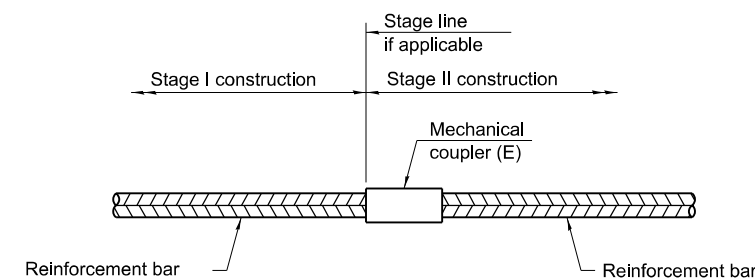
\* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Sidewall at the Junction Chamber (US Rte. 6)	#4	32	2'-11"
Top Slab at the Junction Chamber (US Rte. 6)	#4	68	2'-11"
Bottom Slab at the Junction Chamber (US Rte. 6)	#4	68	2'-11"
Sidewall at the Junction Chamber (IL Rte. 50)	#4	32	2'-11"
Top Slab at the Junction Chamber (IL Rte. 50)	#4	68	2'-11"
Bottom Slab at the Junction Chamber (IL Rte. 50)	#4	68	2'-11"
Sidewall at the Stage Construction (IL Rte. 50)	#4	32	2'-11"
Top Slab at the Stage Construction (IL Rte. 50)	#4	68	2'-11"
Bottom Slab at the Stage Construction (IL Rte. 50)	#4	68	2'-11"
Top Slab at Mandatory Construction Joint (US Rte. 6)	#4	68	2'-11"
Bottom Slab at Mandatory Construction Joint (US Rte. 6)	#4	68	2'-11"
Sidewalls at Mandatory Construction Joint (US Rte. 6)	#4	32	2'-11"



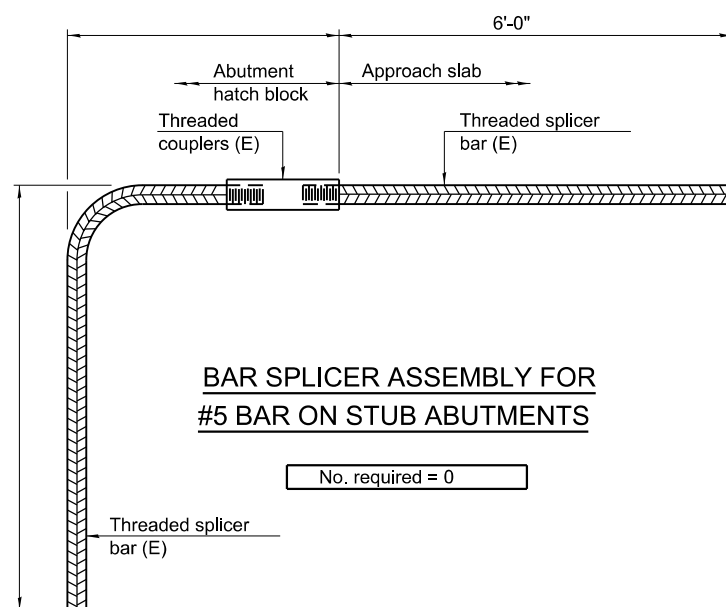
**INSTALLATION AND SETTING METHODS**

"A" : Set bar splicer assembly by means of a template bolt.  
 "B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.  
 (E) : Indicates epoxy coating.



**STANDARD MECHANICAL SPLICER**

Location	Bar size	No. assemblies required



**BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS**

No. required = 0

**NOTES**

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.  
 All reinforcement shall be lapped and tied to the splicer bars.  
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.  
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 2-17-2017



USER NAME = johnn	DESIGNED - PP	REVISED
PLOT SCALE = 0.2" = 1' / in.	CHECKED - SPS	REVISED
PLOT DATE = 8/10/2017	DRAWN - JN	REVISED
	CHECKED - SPS	REVISED

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS  
STRUCTURE NO. 016-2849

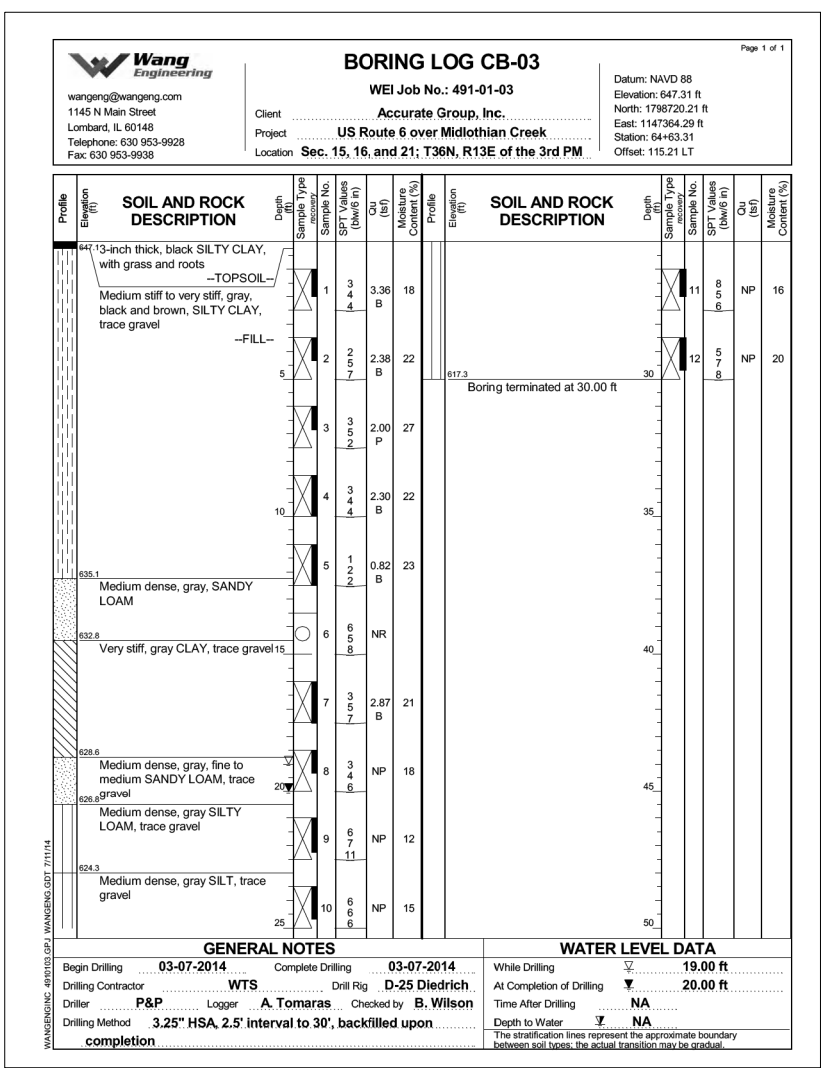
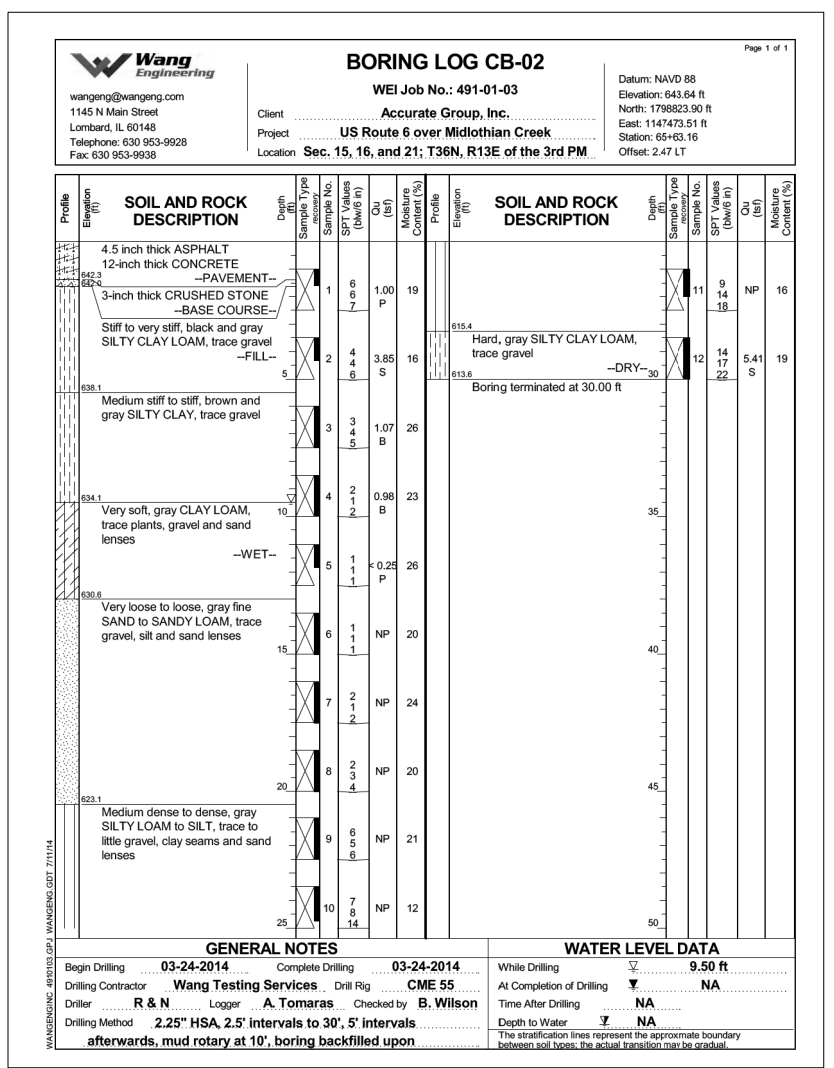
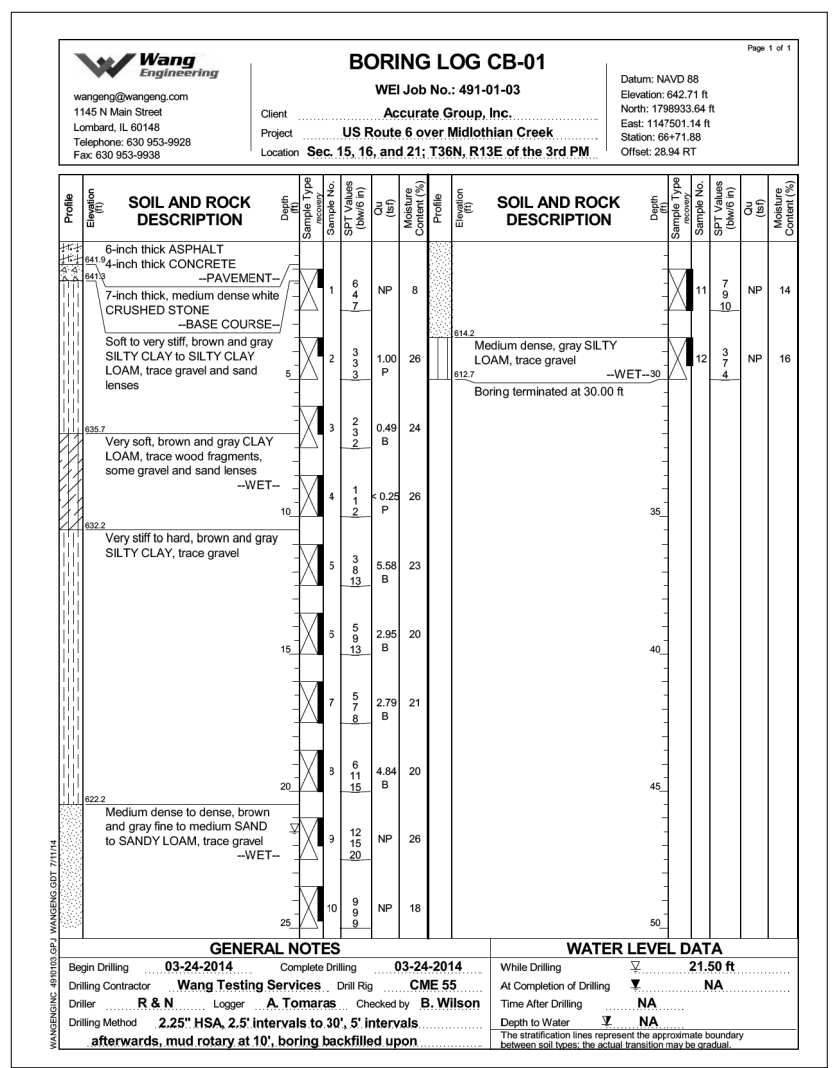
SHEET NO. 14 OF 17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	139
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

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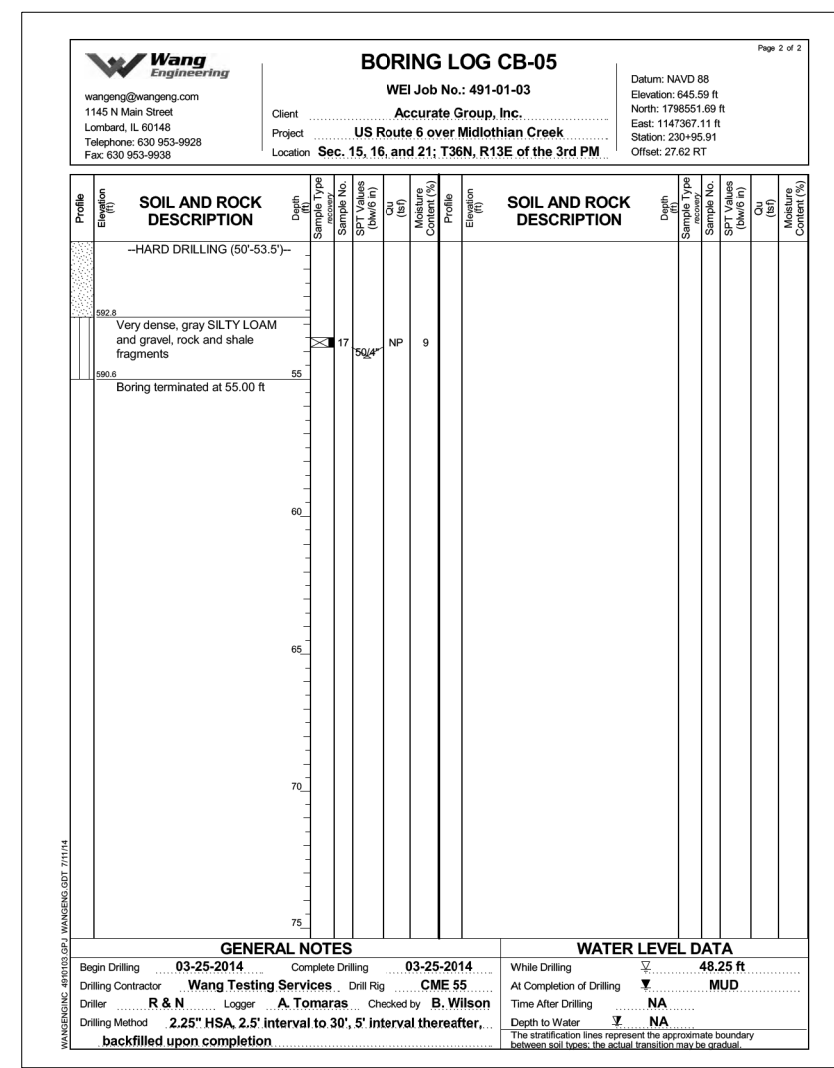
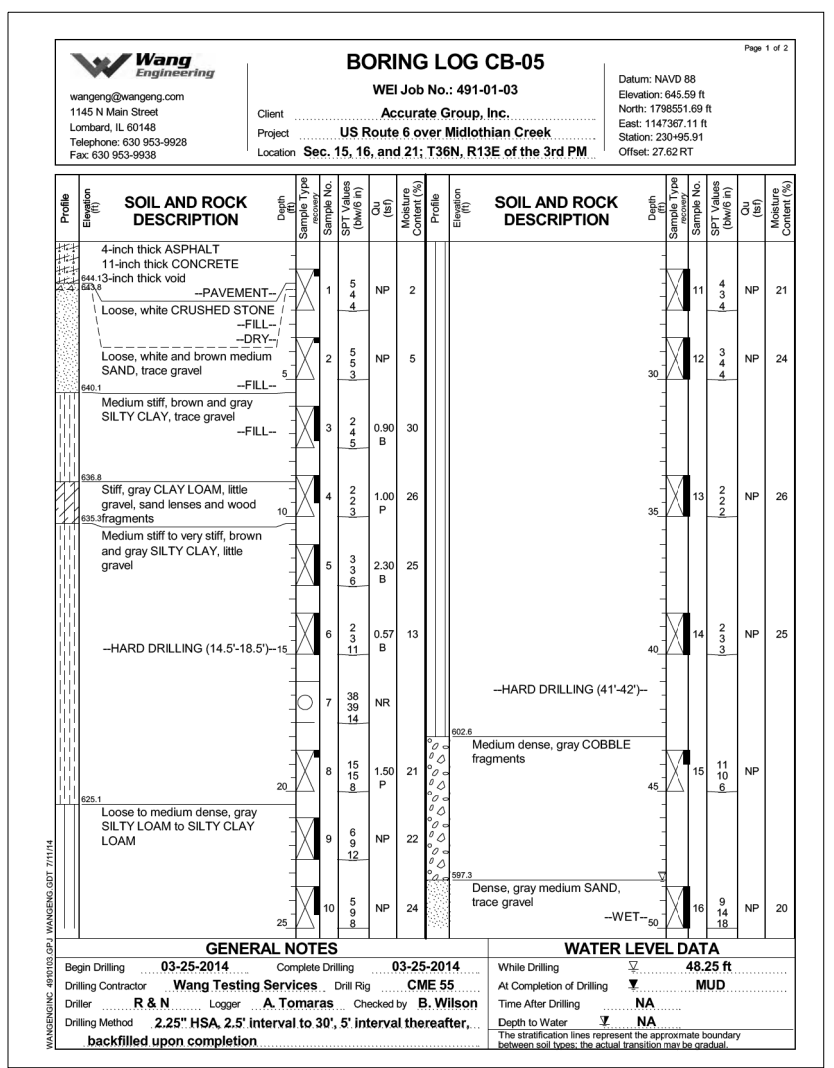
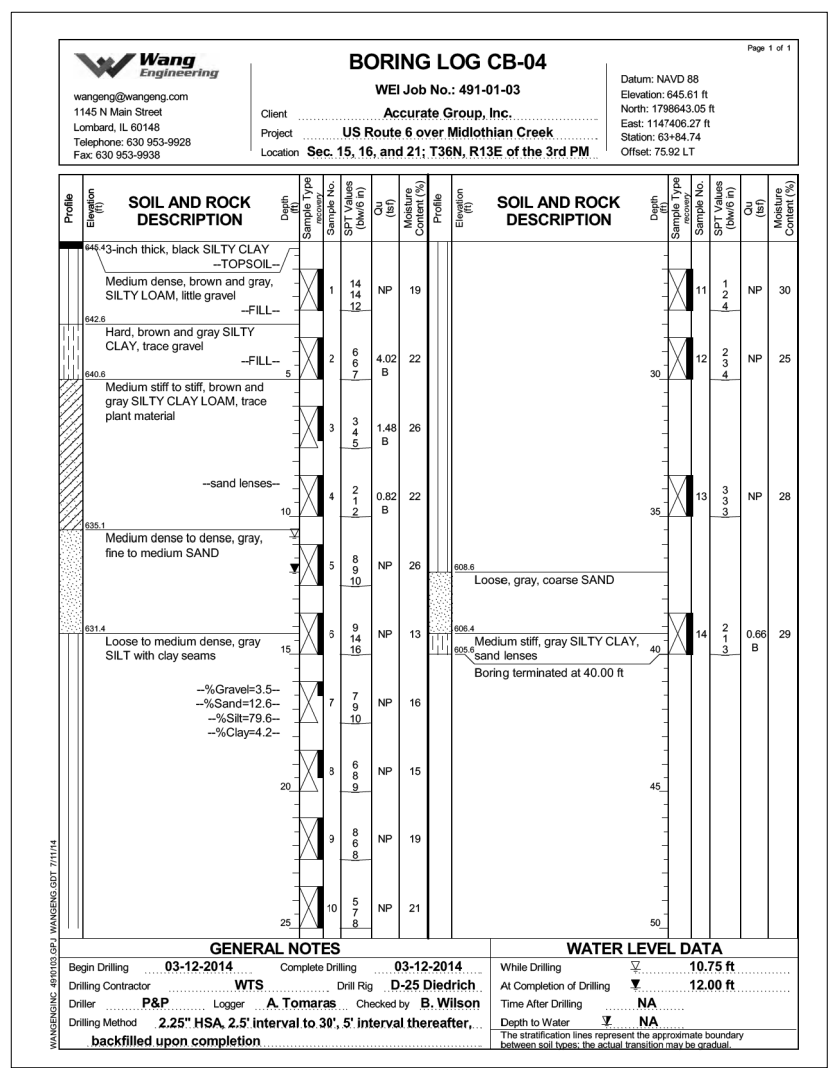
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS - I  
STRUCTURE NO. 016-2849**

SHEET NO. 15 OF 17 SHEETS

F.A.P R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	140
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

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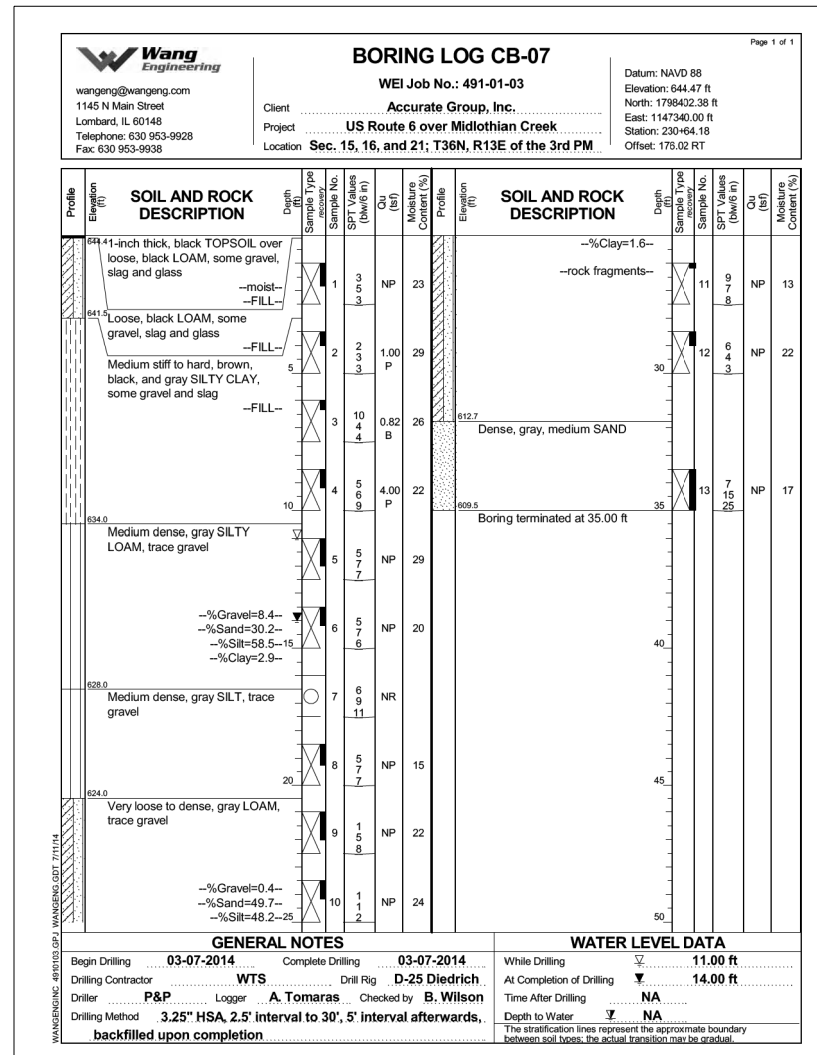
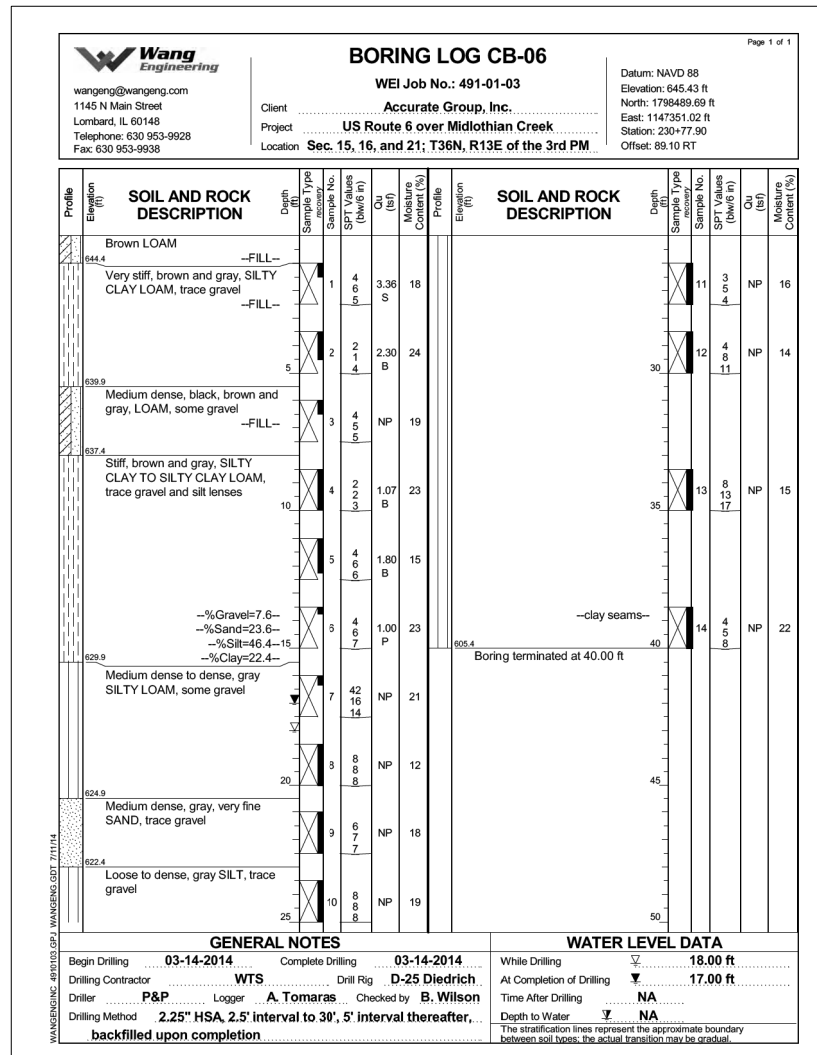
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PLOT DATE = 6/13/2017	DRAWN - JN	REVISED
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STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

BORING LOGS - II  
STRUCTURE NO. 016-2849  
SHEET NO. 16 OF 17 SHEETS

F.A.P R.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	141
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

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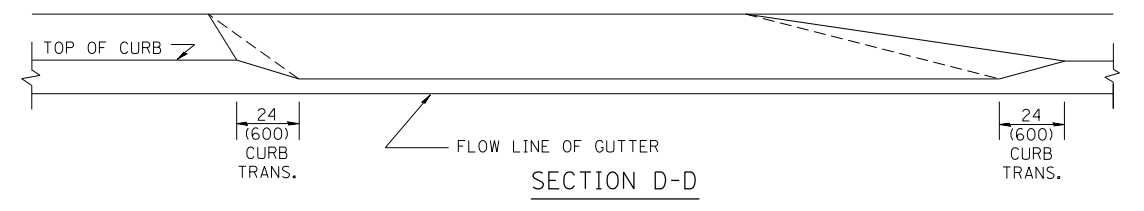
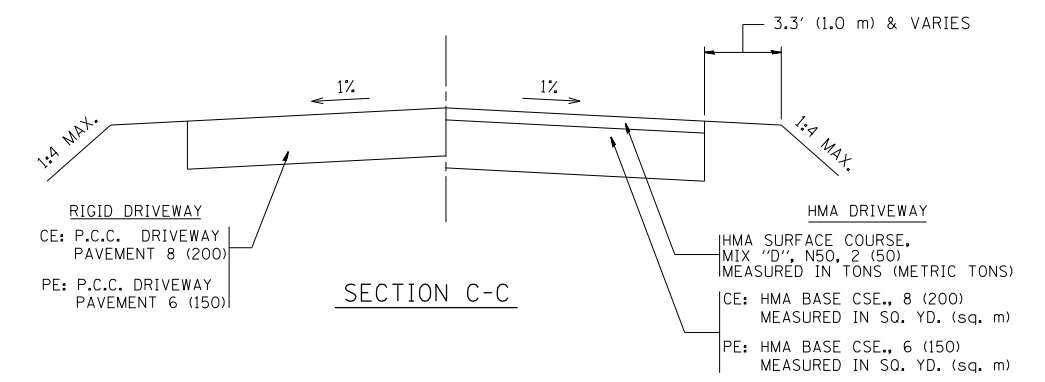
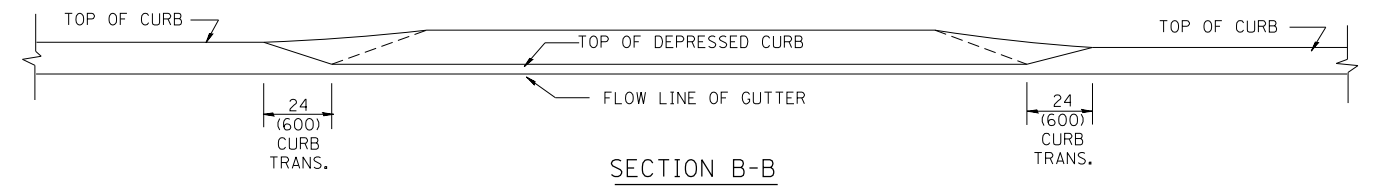
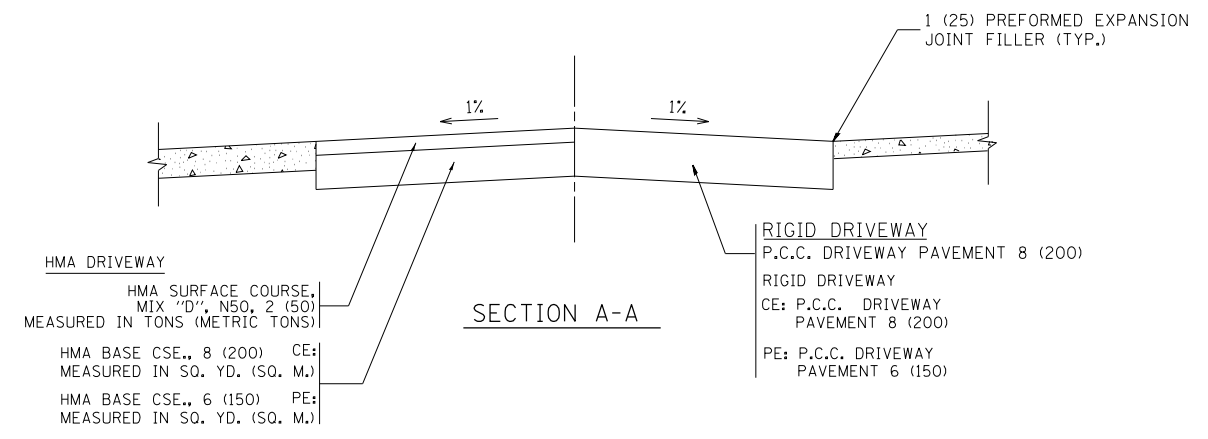
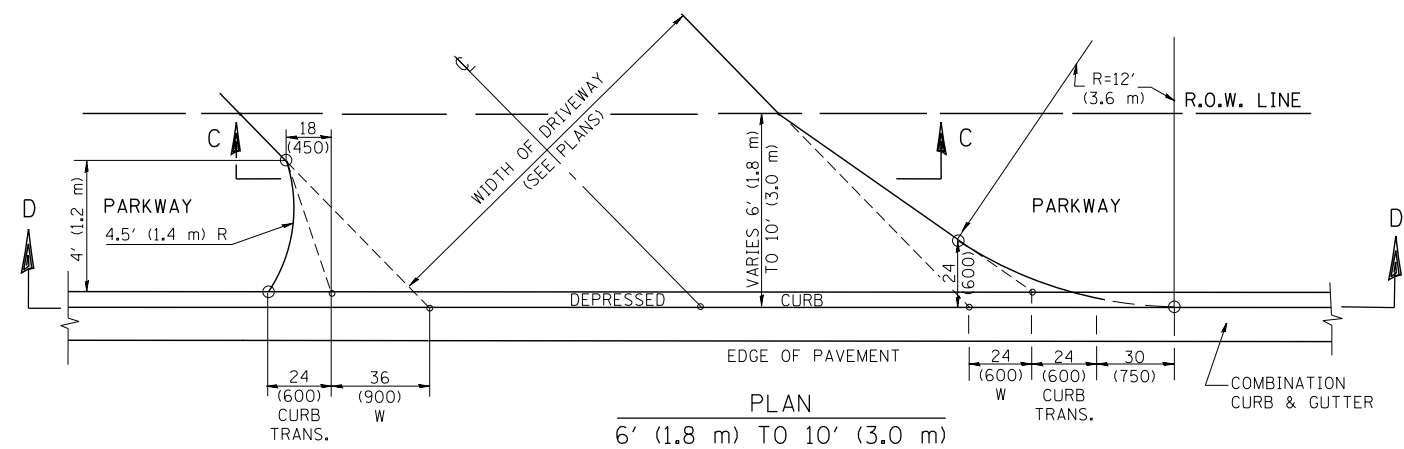
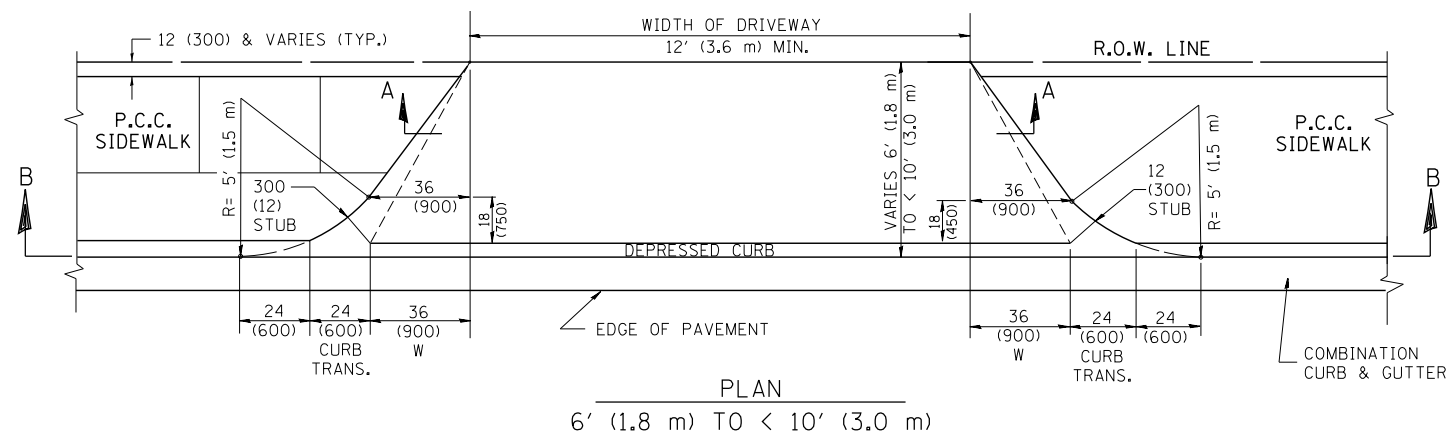
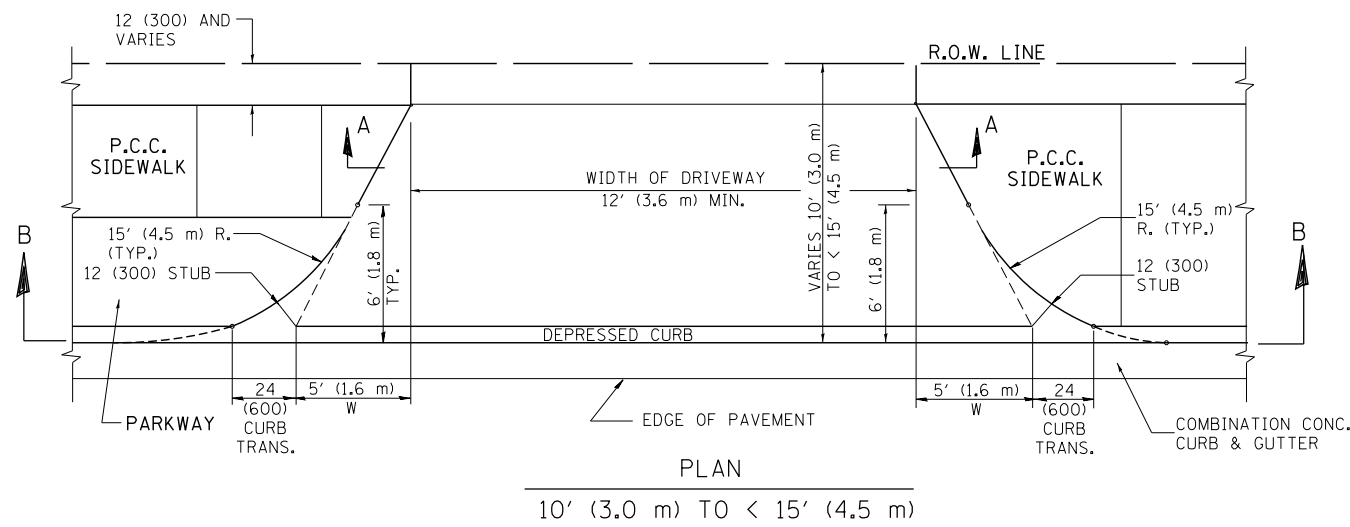
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PLOT SCALE = 0.2" = 1' / in.	CHECKED - SPS	REVISED
PLOT DATE = 6/13/2017	DRAWN - JN	REVISED
	CHECKED - SPS	REVISED

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BORING LOGS - III  
STRUCTURE NO. 016-2849**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z/B-1	COOK	184	142
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

SHEET NO. 17 OF 17 SHEETS



GENERAL NOTES

DRIVEWAY SLOPES, LOCATIONS, & GEOMETRIC LAYOUT SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "HANDBOOK FOR POLICY ON PERMITS FOR ACCESS DRIVEWAYS TO STATE HIGHWAYS". FOR FURTHER LAYOUT REQUIREMENTS, REFER TO ILLUSTRATION 10 IN THE PERMIT HANDBOOK. WHERE SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED WITH RIGID PAVEMENT. WHERE NO SIDEWALKS EXIST, DRIVEWAYS SHALL BE REPLACED IN KIND. SIDEWALK CROSS SLOPE THRU DRIVEWAY AREA TO BE A MAXIMUM OF 1:50.

WHEN THE DISTANCE BETWEEN R.O.W. AND THE BACK OF CURB IS EQUAL TO OR LESS THAN 8' (2.4 m), THE P.C.C. SIDEWALK SHALL EXTEND TO THE BACK OF CURB.

THE RESIDENT ENGINEER SHALL CONTACT THE TRAFFIC PERMIT OFFICE AT 847/ 705-4131 FOR ANY QUESTIONS ON DRIVEWAYS SHOWN IN THE PLANS; SPECIFICALLY IN REFERENCE TO ADDITIONAL AND/OR RELOCATION/REMOVAL OF A DRIVEWAY.

COMBINATION CONCRETE CURB & GUTTER SHALL BE MEASURED STRAIGHT ACROSS THE DRIVEWAY. NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR THE CURB & GUTTER TRANSITION.

THE 1 (25) PREFORMED EXPANSION JOINT FILLER WILL NOT BE PAID SEPARATELY, BUT SHALL BE CONSIDERED INCLUDED IN THE COST OF THE P.C.C. DRIVEWAY PAVEMENT OR P.C.C. SIDEWALK.

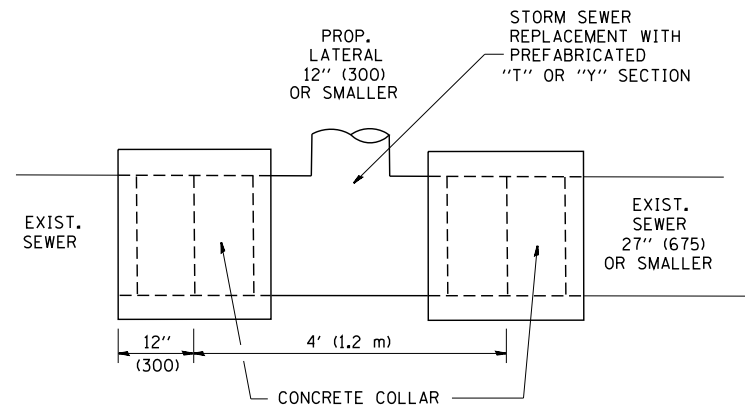
"W" VARIES FROM 36 (900) TO 5' (1.5 m) PROPORTIONAL TO THE LENGTH (L), FROM 6' (1.8 m) TO 10' (3 m).

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE NOTED.

FILE NAME =	USER NAME = lryso	DESIGNED - R. SHAH	REVISED - M. GOMEZ 04-06-01
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	PLOT DATE = 10/28/2011	DATE - 11-06-95	REVISED - R. BORO 09-06-11

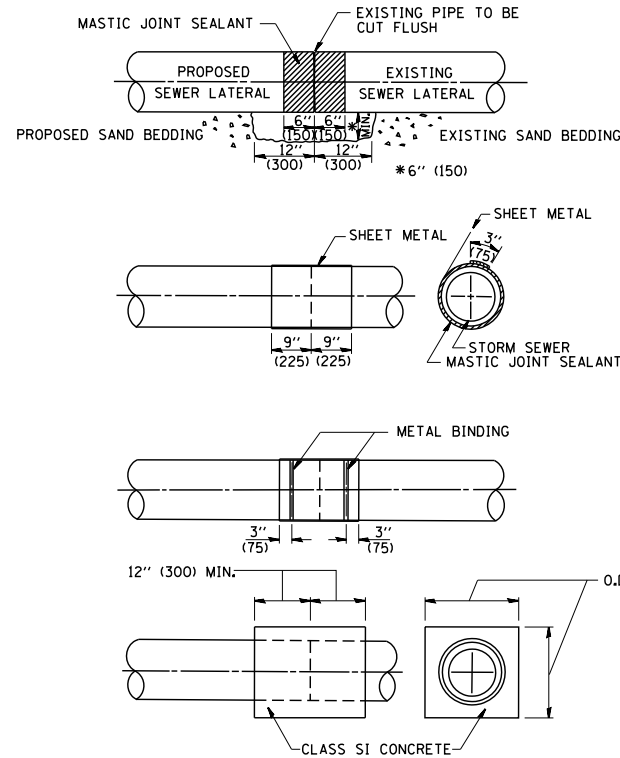
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DRIVEWAY DETAILS		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
DISTANCE BETWEEN ROW AND FACE OF CURB < 15' (4.5 m)		351	(537 & 3277-2)B-1	COOK	184	143
SCALE: NONE		BD400-02 (BD-02)		CONTRACT NO. 60K73		
SHEET NO. 1 OF 1 SHEETS		FED. ROAD DIST. NO. 1		ILLINOIS FED. AID PROJECT		



DETAIL "A"

LATERAL CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER

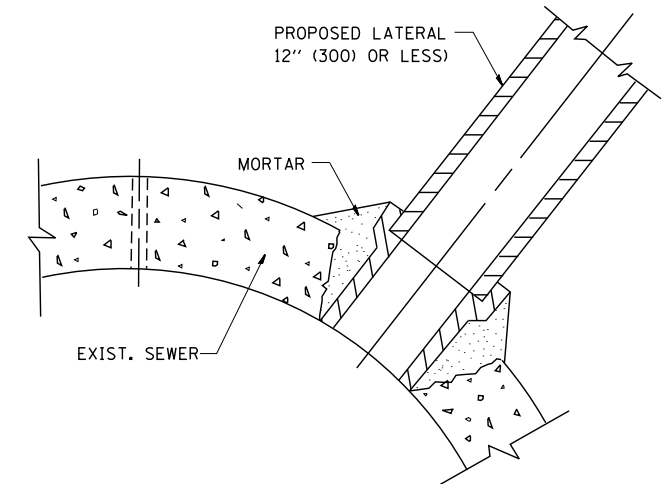


DETAIL "B"

CLASS SI CONCRETE COLLAR

CONSTRUCTION SEQUENCE

1. CUT THE EXISTING END OF THE PIPE SO AS TO PRESENT A FLUSH BUTT JOINT. BRUSH AND CLEAN ALL PIPES.
2. APPLY THE MASTIC JOINT SEALANT TO THE FIRST 6" (150) OF EACH PIPE.
3. BUTT THE PIPES TOGETHER LEAVING A MINIMUM OF 12" x 6" (300 x 150) DEEP EXCAVATION UNDER AND AROUND EACH PIPE END.
4. CUT A PIECE OF SHEET METAL GAGE NO. 19 1.1 (0.0418) 18" (450) WIDE BY THE OUTSIDE CIRCUMFERENCE OF THE PIPE PLUS 3" (75) LONG.
5. WRAP THE SHEET METAL AROUND THE PIPES, 9" (225) ON EACH SIDE OF THE JOINT, STARTING AT THE TOP OF THE PIPE.
6. LAP THE SHEET METAL AT LEAST 3" (75) AT THE TOP OF THE PIPE AND PLACE THE MASTIC JOINT SEALANT BETWEEN THE LAP.
7. PLACE TWO METAL BANDS AROUND THE SHEET METAL AND TIGHTEN.
8. WIPE OFF ANY EXCESS MASTIC JOINT SEALANT THAT OOOZES OUT FROM BETWEEN THE SHEET METAL AND THE PIPES.
9. PLACE CLASS SI CONCRETE AROUND THE JOINT.



DETAIL "C"

PROPOSED LATERAL CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER

NOTES

MATERIAL

MATERIAL USED FOR THE TEE OR WYE SECTION SHALL BE COMPATIBLE WITH THE EXISTING STORM SEWER OR THE PROPOSED STORM SEWER.

CONSTRUCTION METHODS

1. THIS WORK SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE APPLICABLE PORTIONS OF SECTION 550 OF THE STANDARD SPECIFICATIONS.
- II. CONNECTION TO AN EXISTING STORM SEWER SHALL BE BY EITHER OF THE FOLLOWING METHODS:
  - A) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 27" (675) OR SMALLER SEE DETAIL "A" AND "B".
  - B) PROPOSED STORM SEWER CONNECTION TO EXISTING SEWER OF 30" (750) OR LARGER SEE DETAIL "C".

IF THE EXISTING SEWER PIPE IS CRACKED, BROKEN OR OTHERWISE DAMAGED BY THE CONTRACTOR IN MAKING THE CIRCULAR OPENING, THE CONTRACTOR SHALL REPLACE THAT SECTION OF PIPE WITH PIPE EQUAL AND SIMILAR IN ALL RESPECTS TO THE PIPE IN THE EXISTING SEWER, IN A CAREFUL WORKMANLIKE MANNER, WITHOUT EXTRA COMPENSATION.

GENERAL

CARE MUST BE TAKEN TO PREVENT DEBRIS FROM ENTERING THE SEWER. ALL DEBRIS WHICH ENTERS THE SEWER MUST BE REMOVED. THE SEWER MUST BE LEFT CLEAN AND UNOBSTRUCTED UPON COMPLETION OF THE CONTRACT.

CARE MUST BE TAKEN TO PREVENT ANY PART OF THE NEW PIPE CONNECTION FROM PROJECTING INTO THE EXISTING SEWER.

BASIS OF PAYMENT

TEE OR WYE CONNECTIONS SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR STORM SEWER TEE OR WYE OF THE TYPE AND SIZE SPECIFIED IN THE PLANS. THIS PRICE SHALL INCLUDE ALL EXCAVATION OF THE TRENCH, REMOVAL OF THE EXISTING STORM SEWER, FURNISHING AND INSTALLING THE SPECIFIED TEE OR WYE SECTION, FURNISHING AND INSTALLING THE REQUIRED CONCRETE COLLAR, AND ALL OTHER MATERIAL NECESSARY TO COMPLETE THIS WORK AS SHOWN AND SPECIFIED.

REMOVAL AND REINSTALLATION OF EXISTING STORM SEWER ADJACENT TO THE PROPOSED TEE OR WYE SECTION, FOR THE PURPOSE OF FACILITATING THE INSTALLATION OF THE TEE OR WYE SECTION, WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR THE WORK.

TRENCH BACKFILL, EXCAVATION IN ROCK AND REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL BELOW PLAN BEDDING GRADE WILL BE PAID FOR SEPARATELY.

CONCRETE COLLAR FOR CONNECTING A PROPOSED STORM SEWER TO AN EXISTING STORM SEWER WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE INCLUDED IN THE COST OF THE PROPOSED STORM SEWER.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

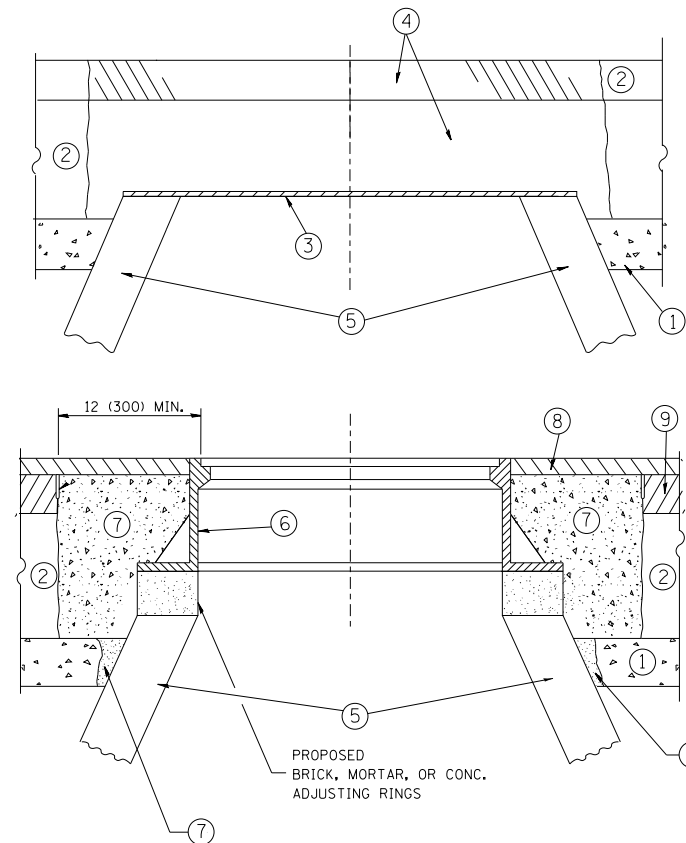
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	PLOT DATE = 1/4/2008	DATE - 07-25-90	REVISED - R. SHAH 06-12-96

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

DETAIL OF STORM SEWER  
CONNECTION TO EXISTING SEWER

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-2)B-1	COOK	184	144
BD500-01 (BD-7)		CONTRACT NO.	60K73	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**CONSTRUCTION PROCEDURES**

**STAGE 1 (BEFORE PAVEMENT MILLING)**

- A) REMOVE A MINIMUM OF 12 (300) OF THE PAVEMENT FROM AROUND THE STRUCTURE.
- B) REMOVE THE EXISTING FRAME AND LID FROM THE STRUCTURE.
- C) COVER THE STRUCTURE OPENING WITH A 36 (900) DIAMETER METAL PLATE.
- D) BACKFILL WITH CRUSHED STONE AND A MINIMUM 1/2 (40) THICK HMA SURFACE MIX APPROVED BY THE ENGINEER.

**STAGE 2 (AFTER PAVEMENT MILLING)**

- A) REMOVE THE HMA SURFACE MIX AND CRUSHED STONE.
- B) INSTALL THE FRAME AND LID; ADJUST THE FRAME TO ITS FINAL SURFACE ELEVATION.
- C) THE SURROUNDING SPACE SHALL BE FILLED WITH CLASS PP-1\* CONCRETE TO THE ELEVATION OF THE SURFACE OF THE EXISTING BASE COURSE OR THE BINDER COURSE.

\* UNLESS OTHERWISE SPECIFIED IN THE PLANS.

THE PROCEDURE EXPLAINED ABOVE SHALL CONFORM TO THE APPLICABLE PORTIONS OF SECTIONS 353, 406, 602, AND 603 OF THE STANDARD SPECIFICATIONS EXCEPT THAT "THE CONTRACTOR SHALL ADJUST THE STRUCTURES TO THE FINISHED PAVEMENT ELEVATION NO MORE THAN 5 CALENDAR DAYS PRIOR TO PLACEMENT OF THE FINAL LIFT OF SURFACE UNLESS APPROVED BY THE ENGINEER."

**LEGEND**

- ① SUB-BASE GRANULAR MATERIAL
- ② EXISTING PAVEMENT
- ③ 36 (900) DIAMETER METAL PLATE
- ④ PROPOSED CRUSHED STONE AND HMA SURFACE MIX
- ⑤ EXISTING STRUCTURE
- ⑥ FRAME AND LID (SEE NOTES)
- ⑦ CLASS PP-1\* CONCRETE
- ⑧ PROPOSED HMA SURFACE COURSE
- ⑨ PROPOSED HMA BINDER COURSE

**LOCATION OF STRUCTURES:**

THE CONTRACTOR WILL BE REQUIRED TO KEEP A RECORD OF THE LOCATIONS OF THE BURIED STRUCTURES ACCORDING TO THE STATION AND DISTANCE LEFT OR RIGHT OF THE CENTERLINE OF PAVEMENT. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL DELIVER THE RECORD TO THE ENGINEER.

**BASIS OF PAYMENT:**

REMOVING FRAMES AND LIDS ON DRAINAGE AND UTILITY STRUCTURES IN THE PAVEMENT PRIOR TO MILLING, AND ADJUSTING TO FINAL GRADE PRIOR TO PLACING THE SURFACE COURSE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE EACH FOR "FRAMES AND LIDS TO BE ADJUSTED (SPECIAL)."

THIS WORK WILL NOT BE PAID FOR WHEN DRAINAGE AND UTILITY STRUCTURES ARE SPECIFIED FOR PAYMENT AS STRUCTURE RECONSTRUCTION.

NEW FRAMES AND LIDS, WHEN SPECIFIED, WILL BE PAID FOR SEPARATELY.

**NOTES:**

EXISTING BROKEN FRAMES AND LIDS SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR AND SHALL BE REPLACED AS DIRECTED BY THE ENGINEER. REPLACEMENT FRAMES AND LIDS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS UNLESS A SEPARATE PAY ITEM HAS BEEN PROVIDED.

IF THE EXISTING LIDS ARE OPEN, THE FRAME WILL BE ADJUSTED TO THE ELEVATION OF THE MILLED PAVEMENT SURFACE PRIOR TO THE MILLING OPERATION. THE FRAME WILL NOT BE REMOVED AND COVERED BY THE METAL PLATE.

CITY OF CHICAGO CASTINGS ARE THE PROPERTY OF THE CITY AND THE CONTRACTOR SHALL NOTIFY THE CITY FOR REMOVAL AND DISPOSITION OF THE CASTINGS.

THE METAL PLATE USED TO COVER THE STRUCTURE SHALL REMAIN THE PROPERTY OF THE CONTRACTOR.

WHEN STRUCTURES ARE TO BE ADJUSTED OR RECONSTRUCTED, THE LOWERING AND RAISING OF THE FRAMES AND LIDS WILL NOT BE PAID FOR SEPARATELY BUT WILL BE INCLUDED IN THE COST OF THE CORRESPONDING PAY ITEM.

**DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING**

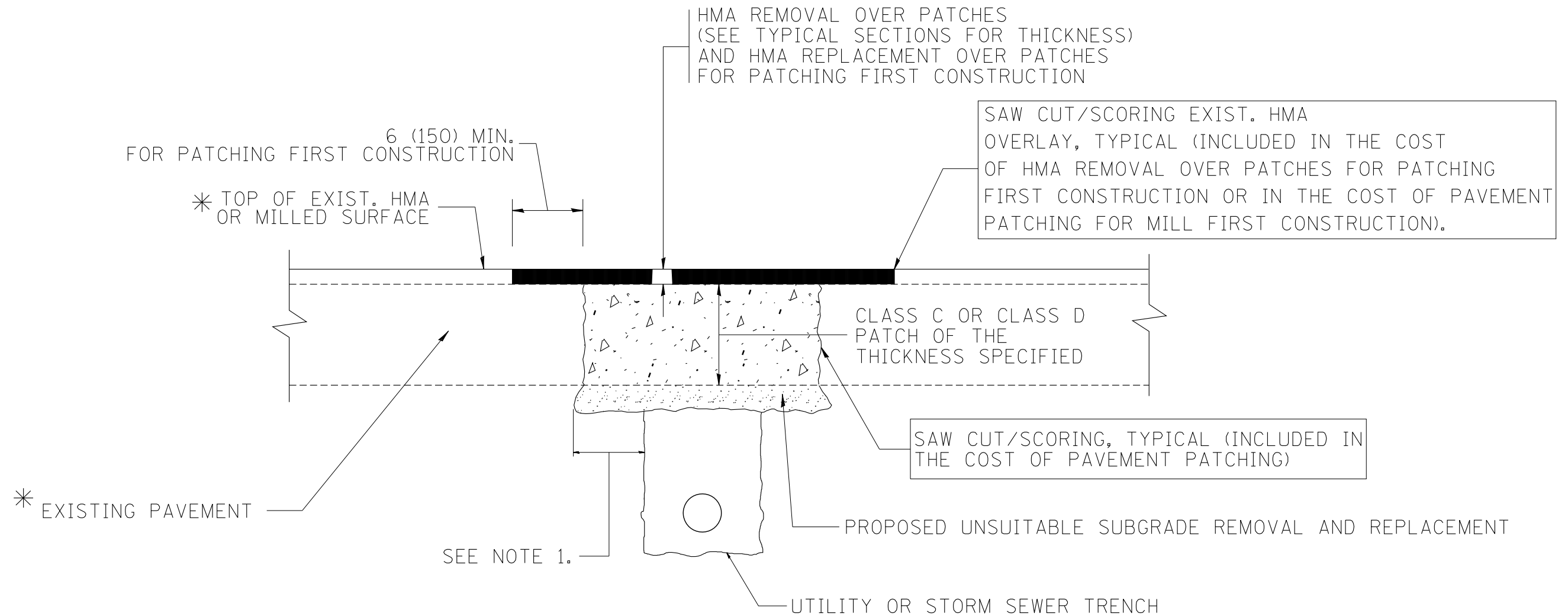
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

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	PLOT DATE = 12/6/2011	DATE - 10-25-94	REVISED - R. BORO 12-06-11

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>DETAILS FOR FRAMES AND LIDS ADJUSTMENT WITH MILLING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	145
<b>BD600-03 (BD-8)</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



\* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

**NOTES:**

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

**SEQUENCE OF CONSTRUCTION (PATCHING FIRST)**

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

**SEQUENCE OF CONSTRUCTION (MILLING FIRST)**

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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		DRAWN -	REVISED - R. BORO 01-01-07
		CHECKED -	REVISED - R. BORO 09-04-07
		DATE - 10-25-94	REVISED - K. ENG 10-27-08

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.
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**PAVEMENT PATCHING FOR  
HMA SURFACED PAVEMENT**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	146
<b>BD400-04 (BD-22)</b>			CONTRACT NO. 60K73	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

VARIABLE - TO MEET EXISTING DIMENSIONS AND FIELD CONDITIONS (SEE NOTE ②)

PROP. CONC. CURB OR CURB AND GUTTER REPLACEMENT IN ACCORDANCE WITH STATE STANDARD 606001. (SEE NOTE ②)

SAW CUT FULL DEPTH - INCLUDED IN THE COST OF SIDEWALK, DRIVEWAY OR MEDIAN SURFACE REMOVAL PAY ITEM.

SEE STATE STANDARD 606001  
EXISTING OR PROPOSED HMA SURFACE (IF APPLICABLE)

18" (450) MAX.

1/4" (5) \*\*

EXISTING SIDEWALK, DRIVEWAY, MEDIAN SURFACE, SOD OR GROUND.

PROPOSED SIDEWALK, DRIVEWAY PAVEMENT, MEDIAN SURFACE OR SODDING SALT TOLERANT WITH TOP SOIL, 4" (100) SOD RESTORATION (SEE NOTE ①).

EXISTING CONCRETE PAVEMENT, CONCRETE BASE COURSE OR FLEXIBLE PAVEMENT

3" (75) MIN.

SUITABLE BACKFILL MATERIAL (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT)

PROPOSED 3/4" (20) PREFORMED EXPANSION JOINT AT CONCRETE SIDEWALKS, DRIVEWAYS, AND MEDIANS. (INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.)

\* 3" (75) MINIMUM FROM TOP AND BOTTOM OF THE CONCRETE PAVEMENT OR BASE COURSE.

\*\* IF THE FINAL SURFACE OF THE PAVEMENT IS CONCRETE, THE GUTTER IS TO BE FLUSH WITH THE PAVEMENT.

NOTE: ① SIDEWALK, DRIVEWAY PAVEMENT OR MEDIAN SURFACE SHALL BE SIMILAR TO THE MATERIAL BEING REMOVED AND WILL BE PAID FOR SEPARATELY.

SODDING, SALT TOLERANT AND TOP SOIL, FURNISH AND PLACE 4" WILL BE PAID FOR SEPARATELY,

② FERTILIZER FOR THE PLACEMENT OF THE SOD IS NOT REQUIRED

③ CURB OR CURB AND GUTTER REPLACEMENT SHALL MATCH THE SHAPE OF THE EXISTING CURB OR CURB AND GUTTER UNLESS OTHERWISE SPECIFIED.

④ FOR CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT ADJACENT TO FLEXIBLE PAVEMENT DELETE EPOXY COATED TIE BARS.

⑤ LONGITUDINAL BARS, IF ENCOUNTERED IN THE EXISTING CURB OR CURB AND GUTTER, ARE NOT TO BE REPLACED. CUTTING AND REMOVING LONGITUDINAL BARS SHALL BE INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑥ THE COST OF HMA SURFACE REMOVAL IN THE EXISTING GUTTER FLAG SHALL BE INCLUDED IN THE COST OF THE CURB AND GUTTER REMOVAL AND REPLACEMENT.

⑦ THE REMOVAL AND REPLACEMENT OF THE EXISTING CURB OR CURB AND GUTTER SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF SECTION 440 AND 606 OF THE STANDARD SPECIFICATIONS.

⑧ THE LOCATIONS OF REMOVAL AND REPLACEMENT OF EXISTING CURB OR CURB AND GUTTER SHALL BE DETERMINED BY THE RESIDENT ENGINEER AT THE TIME OF CONSTRUCTION.

UNSUITABLE SUB-BASE MATERIAL TO BE REMOVED, IF DIRECTED BY THE ENGINEER, SHALL BE REPLACED WITH EITHER SUB-BASE GRANULAR MATERIAL, TYPE B OR ADDITIONAL THICKNESS OF CONCRETE.

REMOVAL AND REPLACEMENT 4" (100) OR LESS IS INCLUDED IN THE COST OF CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT.

REMOVAL AND REPLACEMENT IN EXCESS OF 4" (100) WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PROPOSED #6 (20) EPOXY COATED TIE BARS 24" (600) LONG AT 24" (600) CENTERS WILL NOT BE PAID FOR SEPARATELY. DELETE EPOXY COATED TIE BARS IF EXISTING TIE BARS ARE USABLE AS DETERMINED BY THE ENGINEER. (SEE NOTE ③).

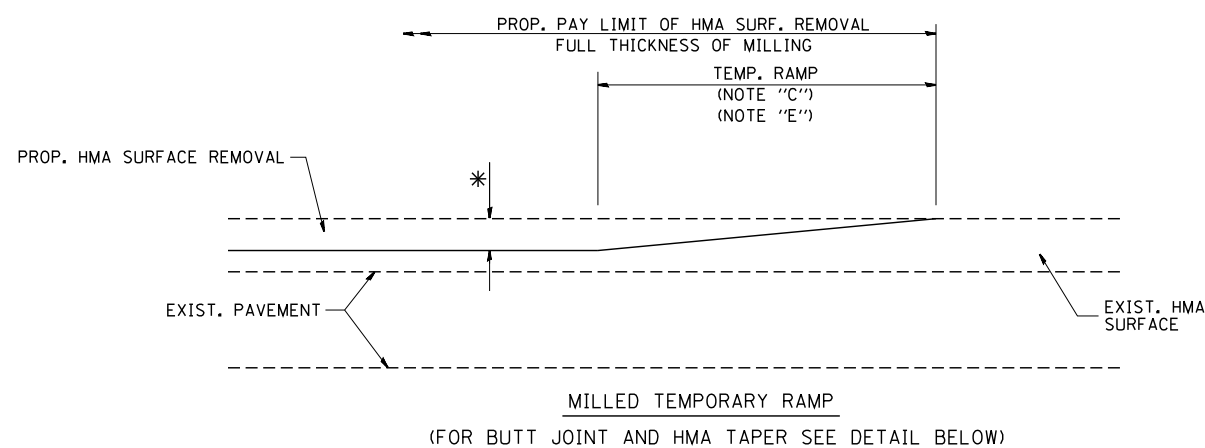
BASIS OF PAYMENT:  
THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER FOOT (METER) FOR "CURB REMOVAL AND REPLACEMENT" OR "COMBINATION CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT".

# CURB OR CURB AND GUTTER REMOVAL AND REPLACEMENT

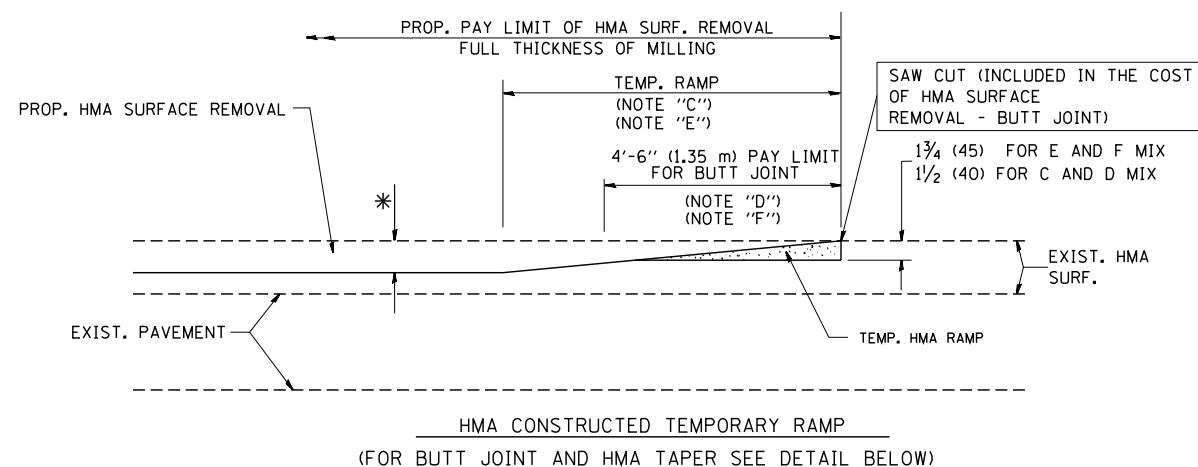
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

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PLOT DATE = 12/15/2009	DATE - 03-11-94	REVISED - R. BORO 12-15-09				SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT



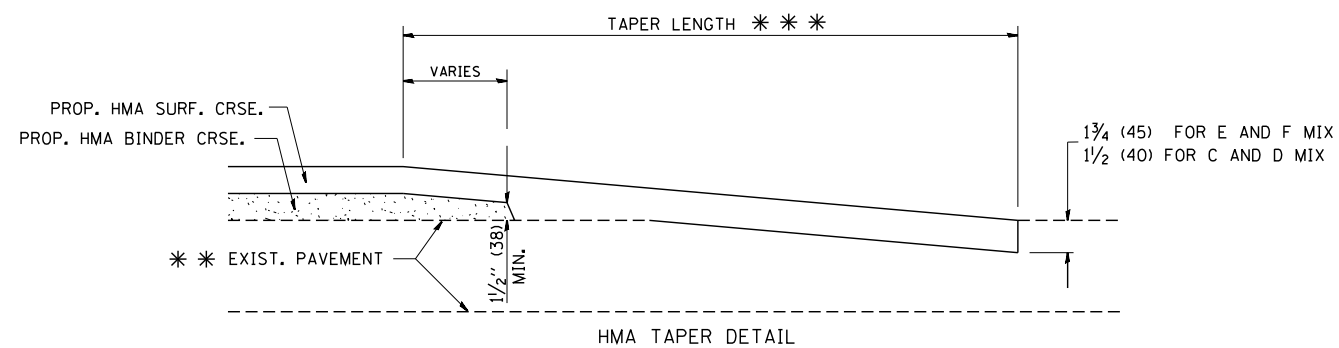
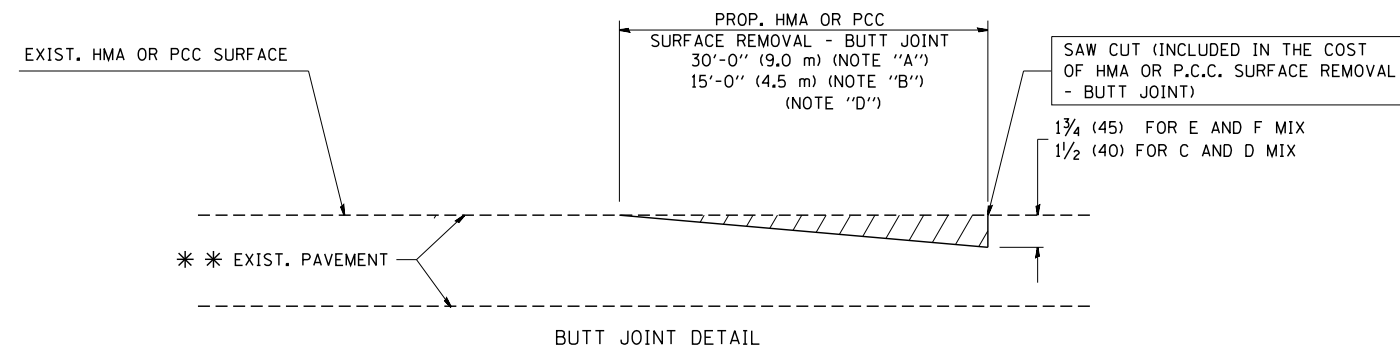


**OPTION 1**



**OPTION 2**

**TYPICAL TEMPORARY RAMP**



**TYPICAL BUTT JOINT AND HMA TAPER FOR RESURFACING ONLY**

\*\*\* PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

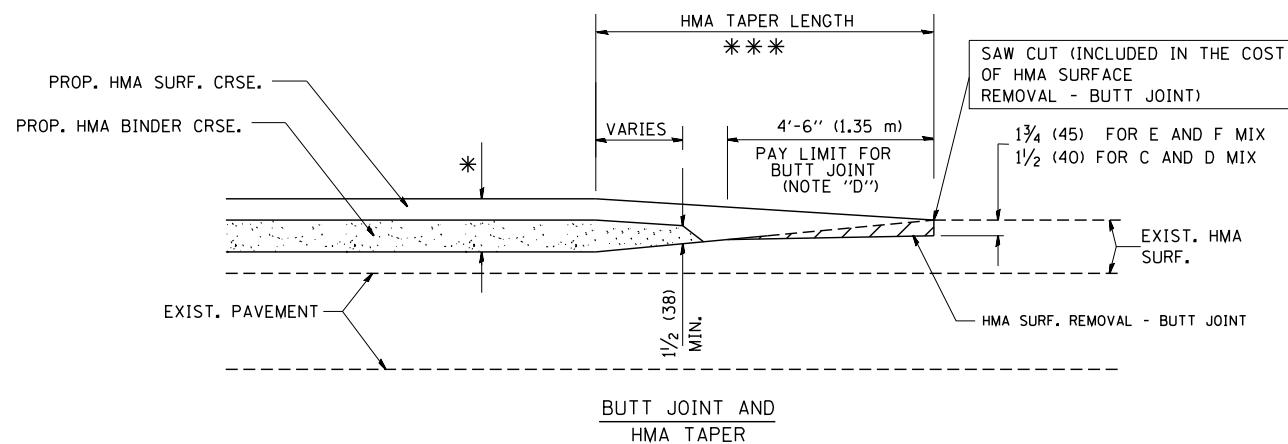
**NOTES**

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
  - B: MINOR SIDE ROADS.
  - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
  - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
  - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
  - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
  - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- \* SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- \*\*\* 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")  
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

**BASIS OF PAYMENT:**

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.



**TYPICAL BUTT JOINT AND HMA TAPER FOR MILLING AND RESURFACING**

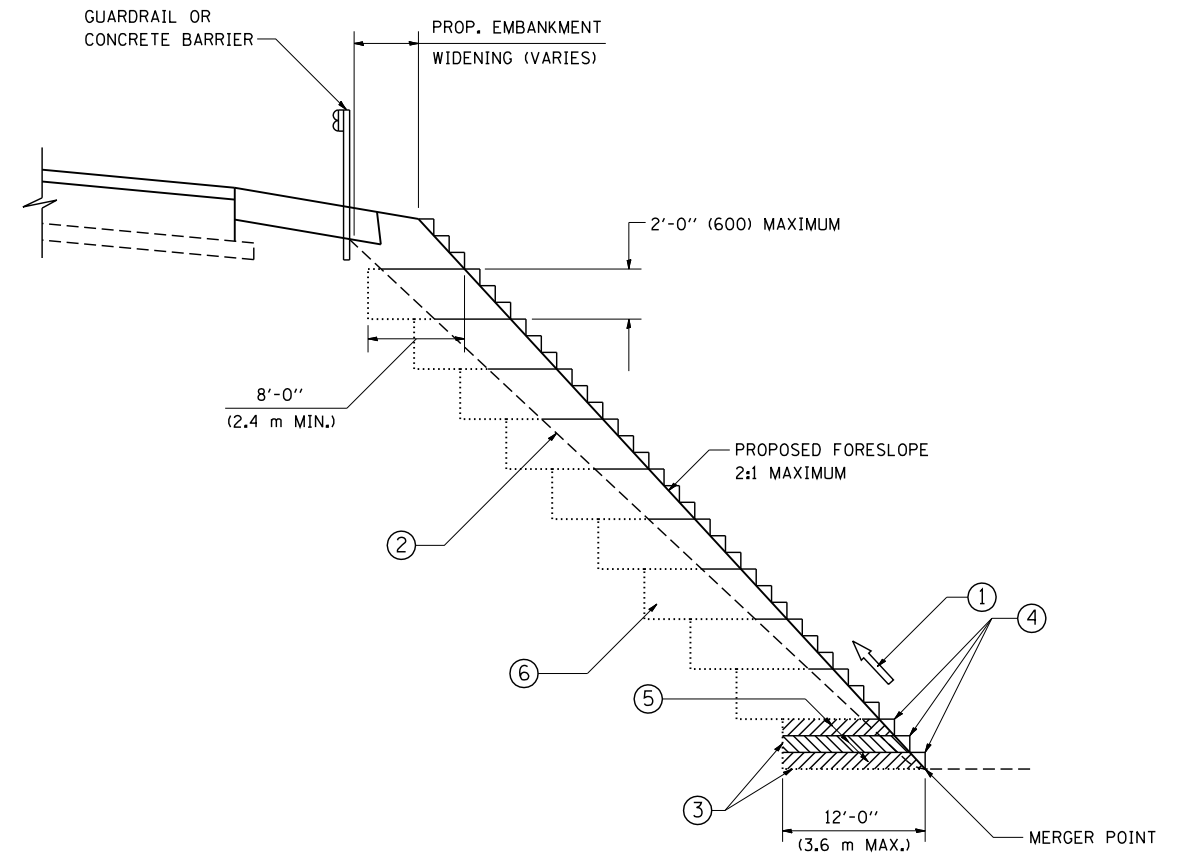
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	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**BUTT JOINT AND  
HMA TAPER DETAILS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	148
<b>BD400-05 BD32</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TYPICAL BENCHING DETAIL  
FOR EMBANKMENT

NOTES:

- ① CONSTRUCT SUCCEEDING BENCH CUTS AND EMBANKMENT PLACEMENT AND COMPACTION FROM BOTTOM TO TOP IN STAIRSTEP FASHION.
- ② EXISTING FORESLOPE PREPARED IN ACCORDANCE WITH ARTICLE 205.03 OF THE STANDARD SPECIFICATIONS.
- ③ BENCH CUT EXISTING SLOPE TYPICAL FOR EACH STEP.
- ④ TRIM TO FINAL SLOPE.
- ⑤ EQUAL 8-INCH (200) LIFTS OF EMBANKMENT COMPACTED IN ACCORDANCE WITH ARTICLE 205.05 OF THE STANDARD SPECIFICATIONS.
- ⑥ EXCAVATION OF BENCH CUTS WITHIN EXISTING EMBANKMENT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC METER OR CUBIC YARD FOR "EARTH EXCAVATION". THIS PRICE WILL INCLUDE ALL LABOR AND MATERIAL, NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
- ⑦ SLOPES SHALL BE BENCHED ACCORDING TO THIS DETAIL WHEN THE SLOPE IS STEEPER THAN 4:1 AND THE HEIGHT IS GREATER THAN 5' (1.5 m).

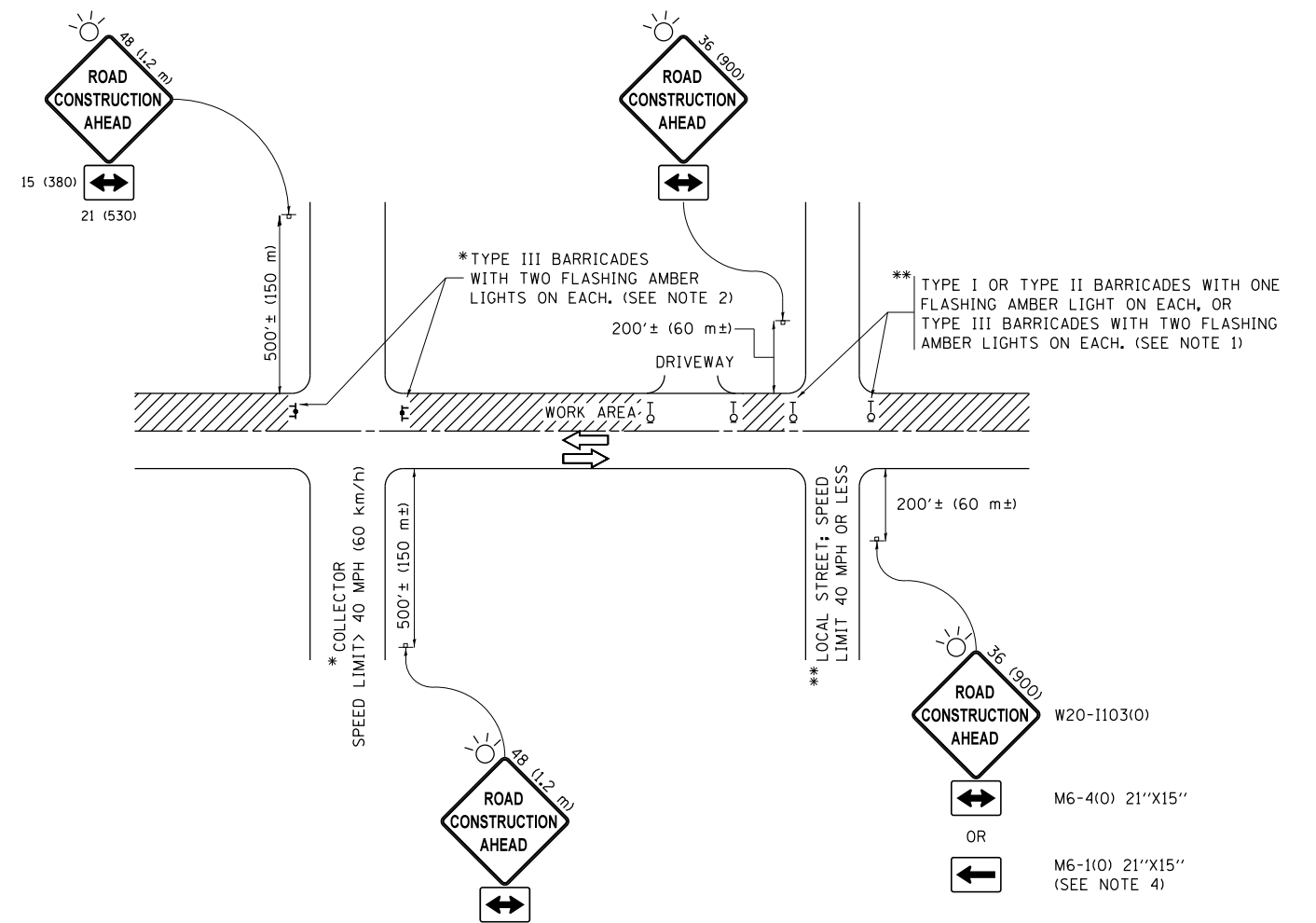
ALL DIMENSIONS ARE IN INCHES (MILLIMETERS)  
UNLESS OTHERWISE SHOWN.

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		CHECKED - S.E.B.	REVISED -
		DATE - 06-16-04	REVISED -

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

<b>BENCHING DETAIL FOR EMBANKMENT WIDENING</b>			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	149
<b>BD-51</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**NOTES:**

1. SIDE ROAD WITH A SPEED LIMIT OF 40 MPH (60 km/h) OR LESS AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 36 x 36 (900x900) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 200' (60 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE I, TYPE II OR TYPE III BARRICADES, 1/3 OF THE CROSS SECTION OF THE CLOSED PORTION.
2. SIDE ROAD WITH A SPEED LIMIT GREATER THAN 40 MPH (60 km/h) AS SHOWN ON THE DRAWING AND AS DIRECTED BY THE ENGINEER:
  - a) ONE "ROAD CONSTRUCTION AHEAD" SIGN 48 x 48 (1.2 m x 1.2 m) WITH A FLASHER MOUNTED ON IT APPROXIMATELY 500' (150 m) IN ADVANCE OF THE MAIN ROUTE.
  - b) THE CLOSED PORTION OF THE MAIN ROUTE SHALL BE PROTECTED BY BLOCKING WITH TYPE III BARRICADES, 1/2 OF THE CROSS SECTION OF THE CLOSED PORTION.
3. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
4. WHEN THE SIDE ROAD LIES BETWEEN THE BEGINNING OF THE MAINLINE SIGNING AND THE WORK ZONE, A SINGLE HEADED ARROW (M6-1) SHALL BE USED IN LIEU OF THE DOUBLE HEADED ARROW (M6-4).
5. WHEN WORK IS BEING PERFORMED ON A SIDE ROAD OR DRIVEWAY, FOLLOW THE APPLICABLE STANDARD(S). THE DIRECTIONAL ARROW (M6-1 OR M6-4) SHALL BE COVERED OR REMOVED WHEN NO LONGER CONSISTENT WITH THE TRAFFIC CONTROL SET-UP.
6. ADVANCE WARNING SIGNS ARE TO BE OMITTED ON DRIVEWAYS UNLESS OTHERWISE SPECIFIED IN THE PLANS OR BY THE ENGINEER.
7. THE TRAFFIC CONTROL AND PROTECTION FOR SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.

All dimensions are in inches (millimeters) unless otherwise shown.

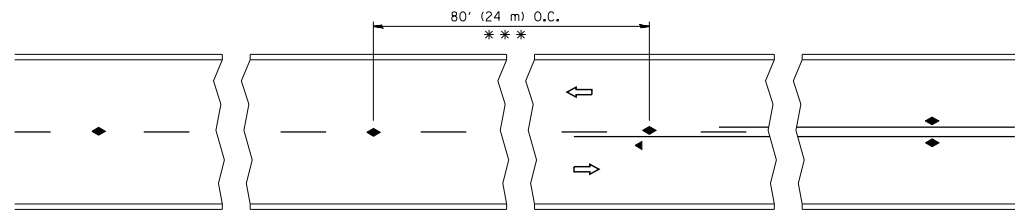
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Default	PLOT SCALE = 50.000' / in.	CHECKED -	REVISED - A. SCHUETZE 07-01-13
	PLOT DATE = 9/15/2016	DATE - 06-89	REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**TRAFFIC CONTROL AND PROTECTION FOR  
SIDE ROADS, INTERSECTIONS, AND DRIVEWAYS**

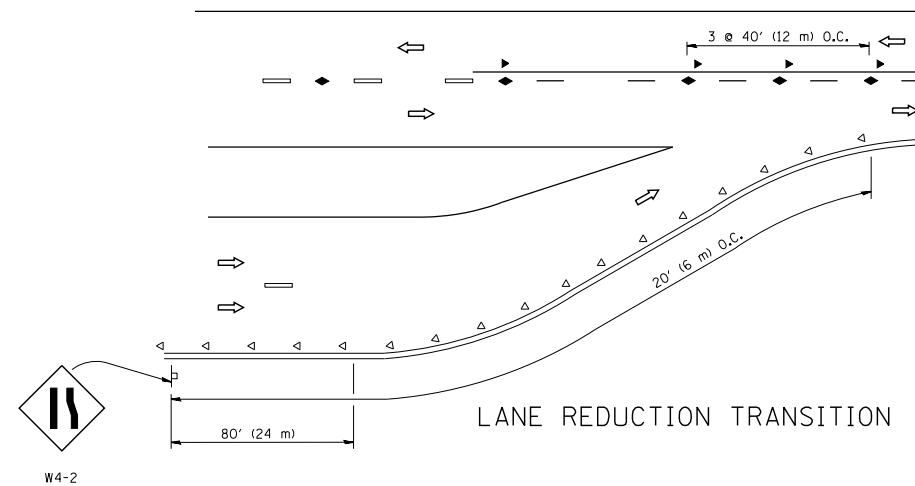
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	150
<b>TC-10</b>		<b>CONTRACT NO. 60K73</b>		
ILLINOIS FED. AID PROJECT				

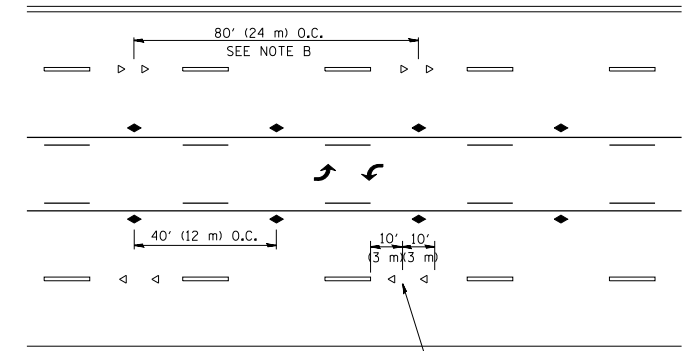


\*\*\* REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

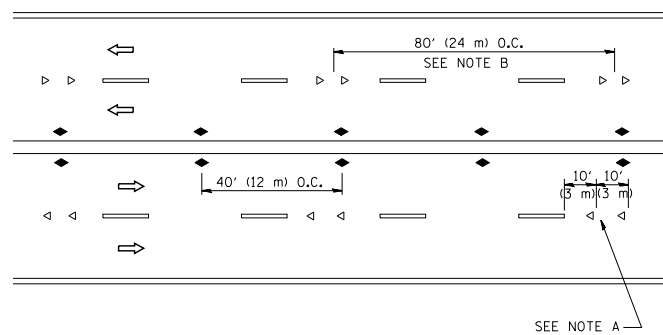
TWO-LANE/TWO-WAY



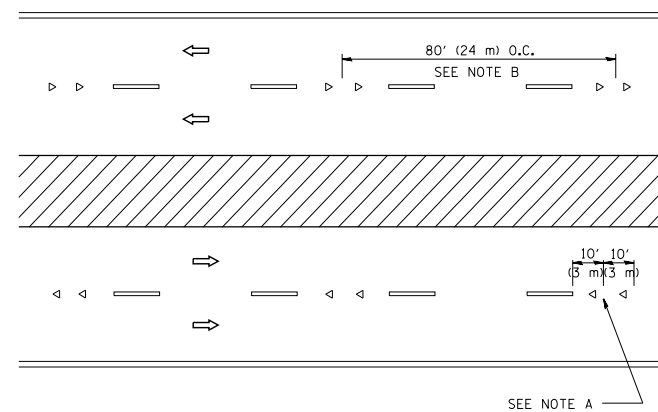
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

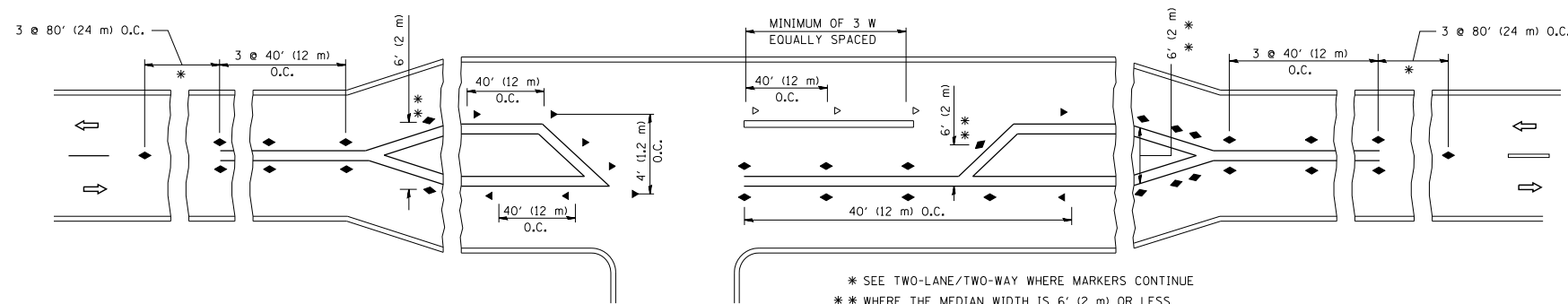
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.



LEFT TURN

\* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE  
 \*\* WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in inches (millimeters) unless otherwise shown.

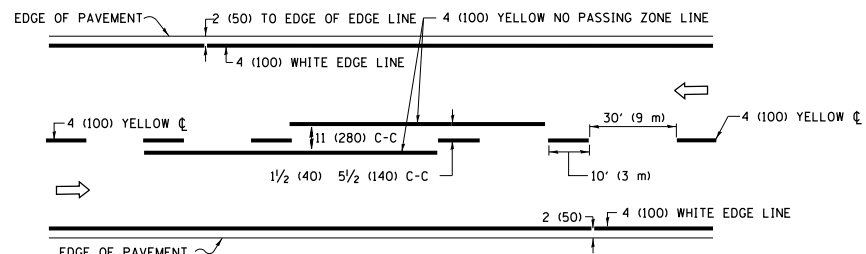
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	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 01-06-00
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STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION

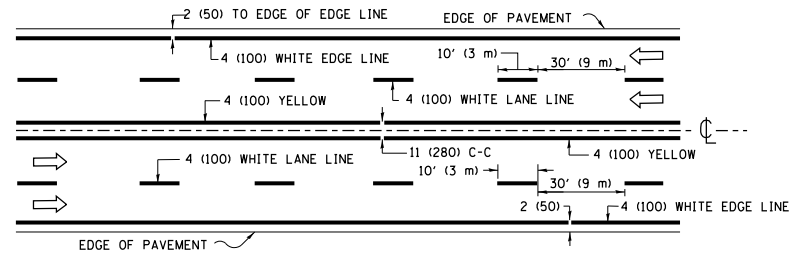
TYPICAL APPLICATIONS  
 RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

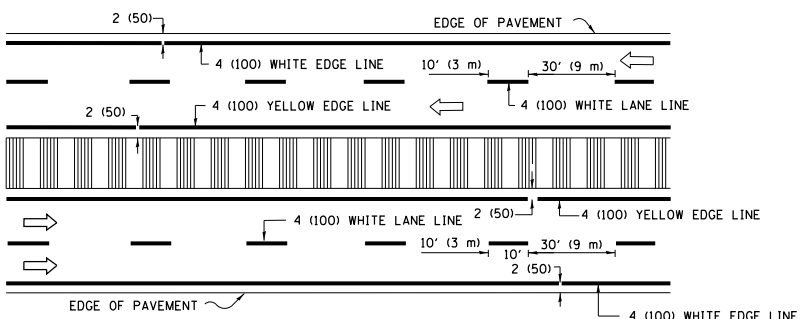
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-2)B-1	COOK	184	151
TC-11		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



**2-LANE ROADWAY**

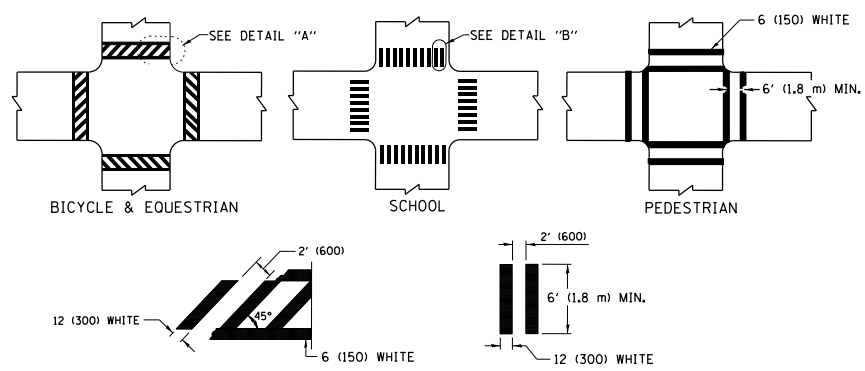


**MULTI-LANE UNDIVIDED**



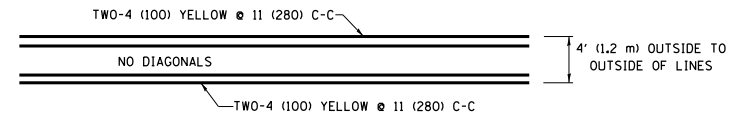
**MULTI-LANE DIVIDED WITH MEDIAN**

**TYPICAL LANE AND EDGE LINE MARKING**

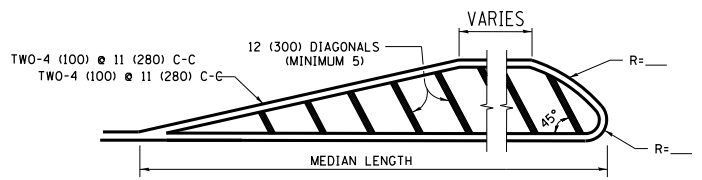


**TYPICAL CROSSWALK MARKING**

\* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

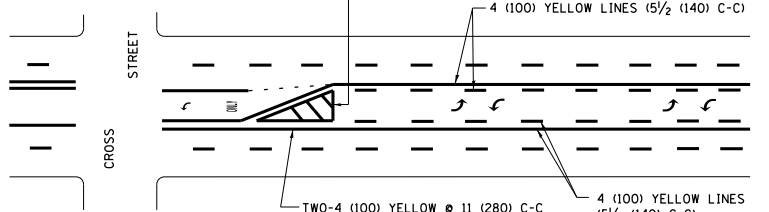


**4' (1.2 m) WIDE MEDIANS ONLY**



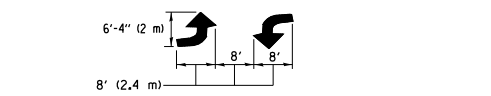
**MEDIANS OVER 4' (1.2 m) WIDE**

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))  
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)  
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



**MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING**

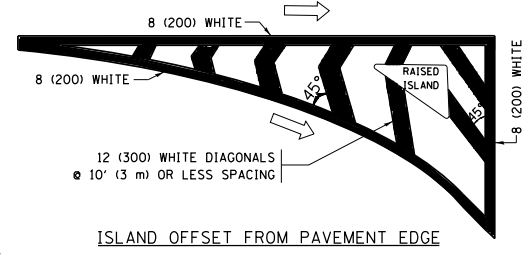
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



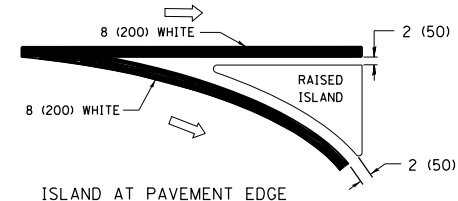
**TYPICAL LEFT (OR RIGHT) TURN LANE**

**TYPICAL TURN LANE MARKING**

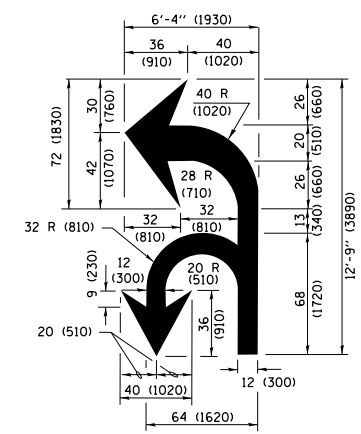
FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.  
AREA = 15.6 SQ. FT. (1.5 m<sup>2</sup>) ONLY AREA = 20.8 SQ. FT. (1.9 m<sup>2</sup>)  
\* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".



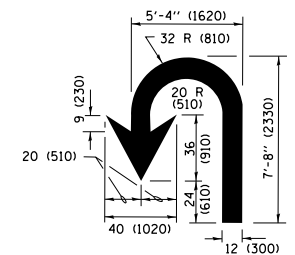
**ISLAND OFFSET FROM PAVEMENT EDGE**



**ISLAND AT PAVEMENT EDGE TYPICAL ISLAND MARKING**



**COMBINATION LEFT AND U-TURN**



**U-TURN**

**LANE REDUCTION TRANSITION**

\* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE.
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m <sup>2</sup> ) EACH "X"=54.0 SQ. FT. (5.0 m <sup>2</sup> )
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

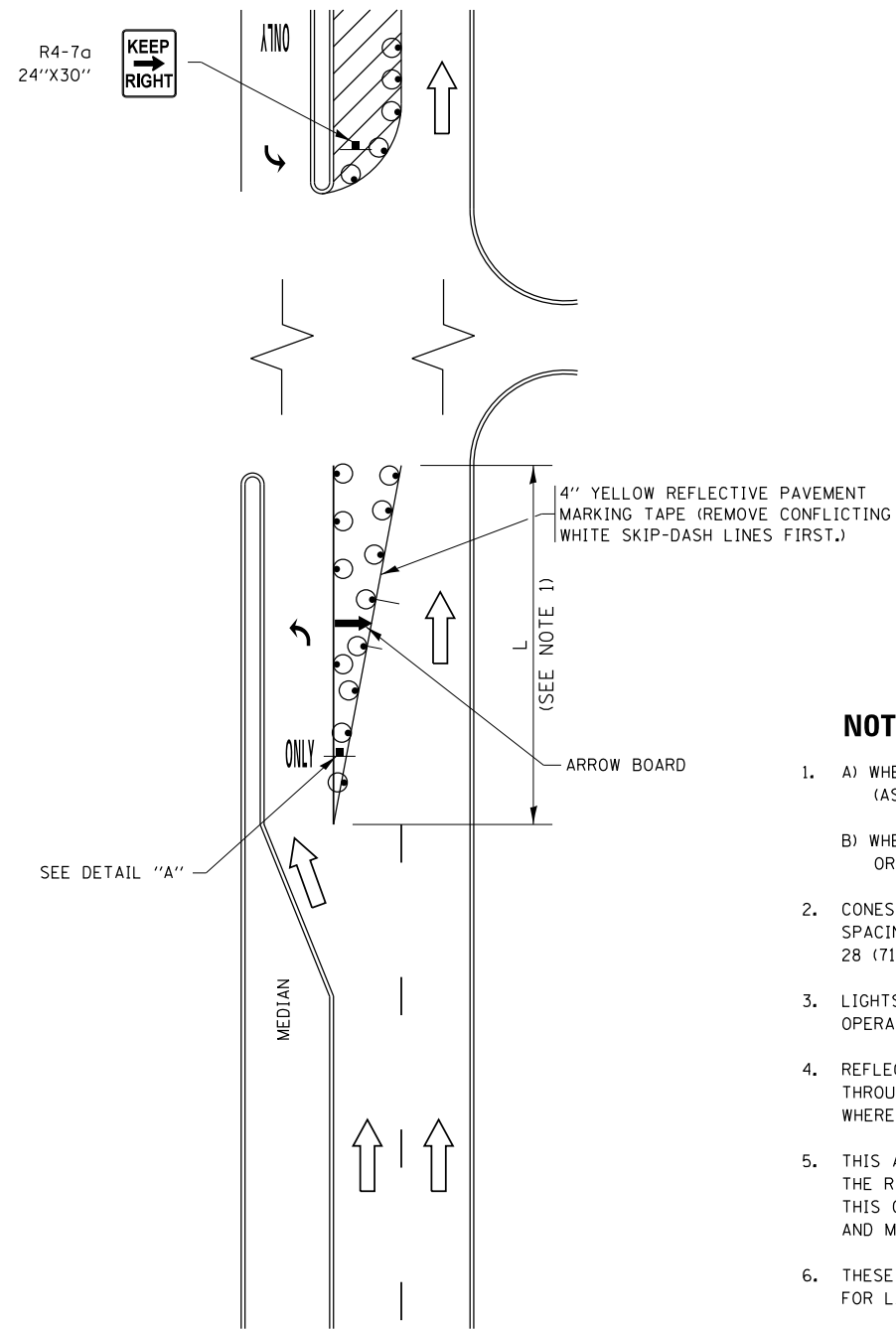
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Default	PLOT SCALE = 50.000' / in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 4/13/2016		REVISED - C. JUCIUS 04-12-16

**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**

<b>DISTRICT ONE</b>			
<b>TYPICAL PAVEMENT MARKINGS</b>			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

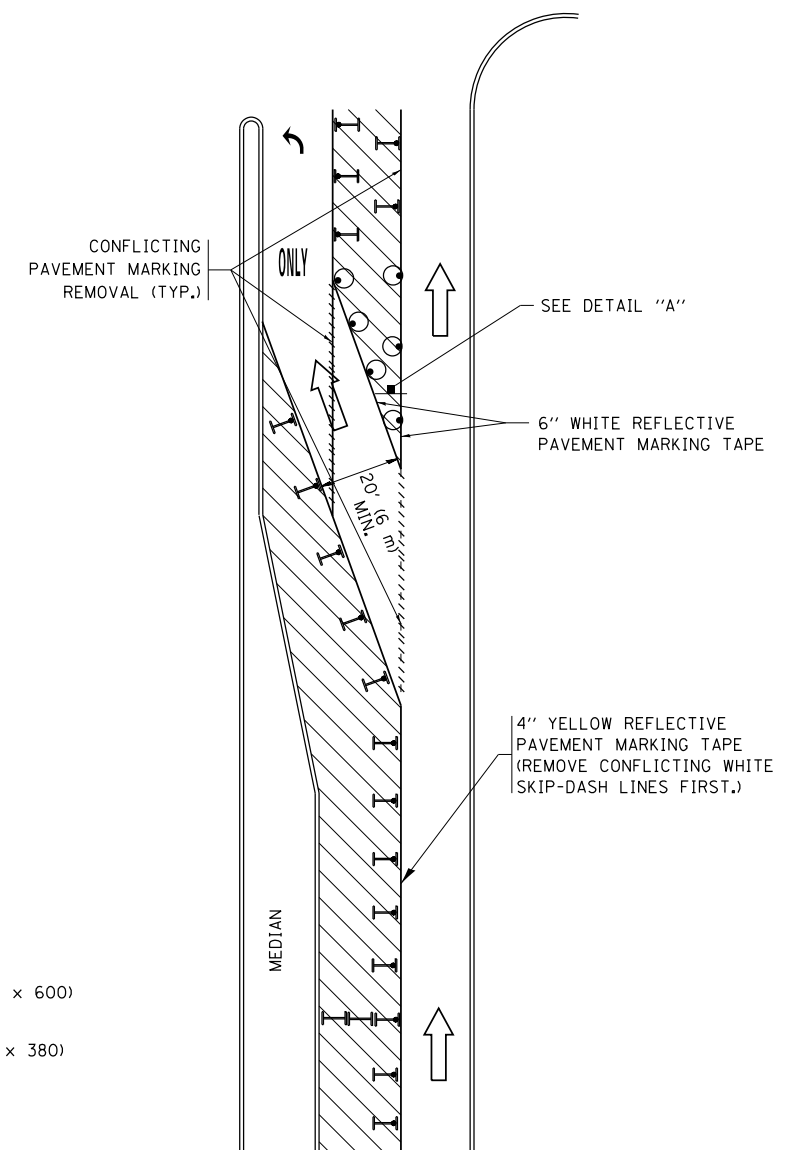
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	152
<b>TC-13</b>		CONTRACT NO. 60K73		
ILLINOIS FED. AID PROJECT				

# TURN BAY ENTRANCE AT START OF LANE CLOSURE TAPER



**FIGURE 1**

# TURN BAY ENTRANCE WITHIN A LANE CLOSURE



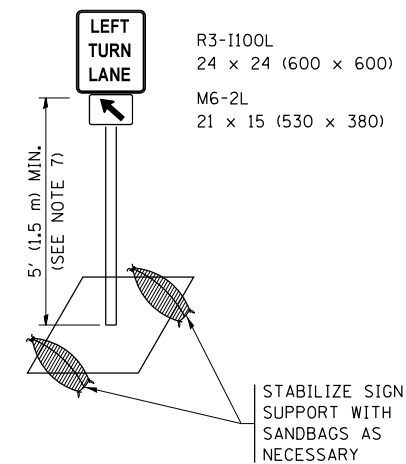
**FIGURE 2**

## LEGEND

- WORK AREA
- LANE OPEN TO TRAFFIC
- ARROW BOARD
- TYPE I OR II BARRICADE OR DRUM WITH STEADY BURN LIGHT
- DRUM WITH STEADY BURN LIGHT
- SIGN ASSEMBLY
- TYPE I OR II CHECK BARRICADE WITH FLASHING LIGHT

## NOTES:

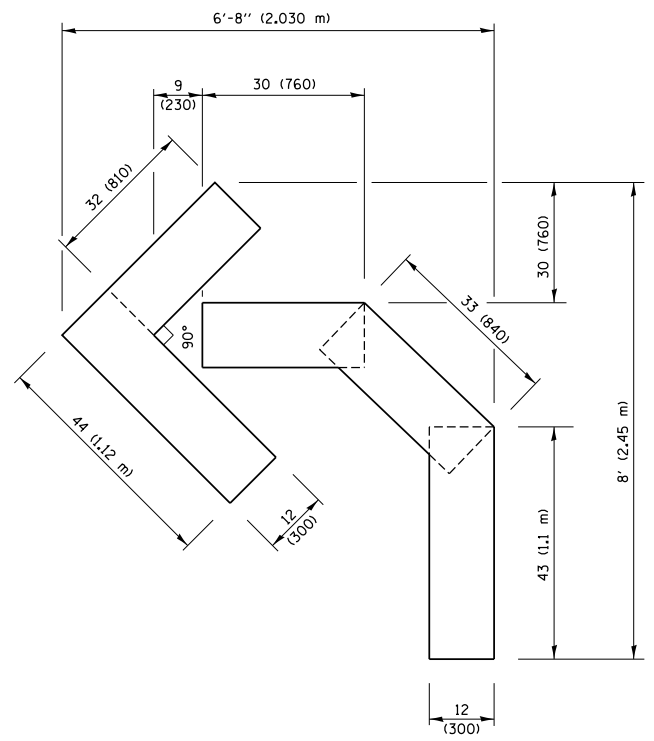
1. A) WHEN "L" IS  $\leq$  THE STORAGE LENGTH OF THE TURN LANE (AS SHOWN IN FIG. 1), USE FIGURE 1.  
B) WHEN "L" IS  $>$  THE STORAGE LENGTH OF THE TURN LANE OR THE TURN LANE IS WITHIN THE LANE CLOSURE, USE FIGURE 2.
2. CONES MAY BE SUBSTITUTED FOR BARRICADES OR DRUMS AT HALF THE SPACING DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (710) IN HEIGHT.
3. LIGHTS WILL NOT BE REQUIRED ON BARRICADES OR DRUMS FOR DAY OPERATIONS. ALL LIGHTS SHALL BE MONODIRECTIONAL.
4. REFLECTIVE TEMPORARY PAVEMENT MARKINGS SHALL BE PLACED THROUGHOUT THE BARRICADED AREAS OF EACH TURN BAY AS SHOWN WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN (14) DAYS.
5. THIS APPLICATION ALSO APPLIES WHEN WORK IS BEING PERFORMED IN THE RIGHT LANE(S) AND THE RIGHT TURN BAY IS TO REMAIN OPEN. UNDER THIS CONDITION, "RIGHT TURN LANE" R3-1100R 24 x 24 (600 x 600) AND M6-2R 21 x 15 (530 x 380) SHALL BE USED.
6. THESE CONTROLS SHALL SUPPLEMENT MAINLINE TRAFFIC CONTROL FOR LANE CLOSURES.
7. THE SIGNS SHALL BE MOUNTED ABOVE THE BARRICADES/DRUMS ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 OR MASH PREQUIREMENTS.
8. TRAFFIC CONTROL AND PROTECTION AT TURN BAYS (TO REMAIN OPEN TO TRAFFIC) SHALL BE INCLUDED IN THE COST OF SPECIFIED TRAFFIC CONTROL STANDARDS OR ITEMS.



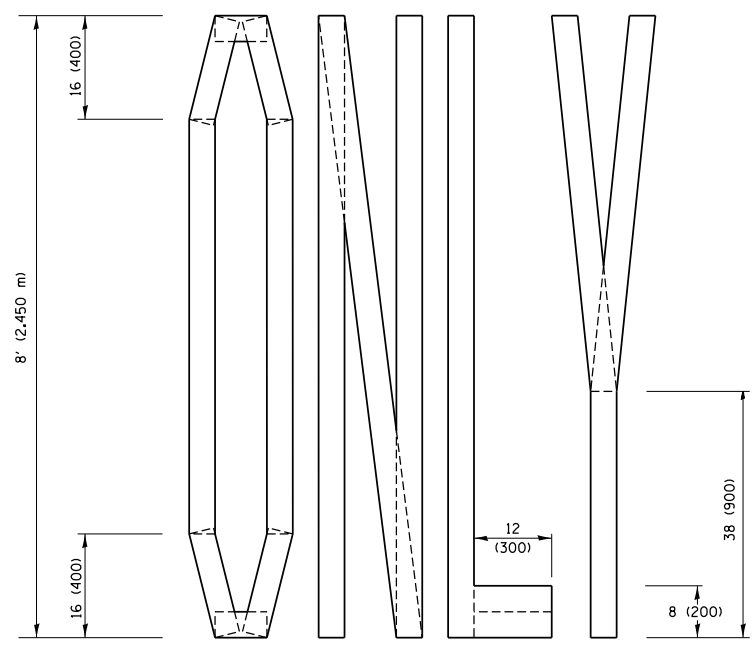
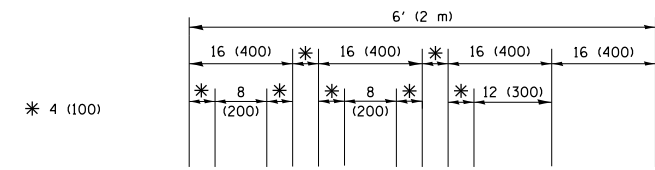
**DETAIL A**

All dimensions are in inches (millimeters) unless otherwise shown.

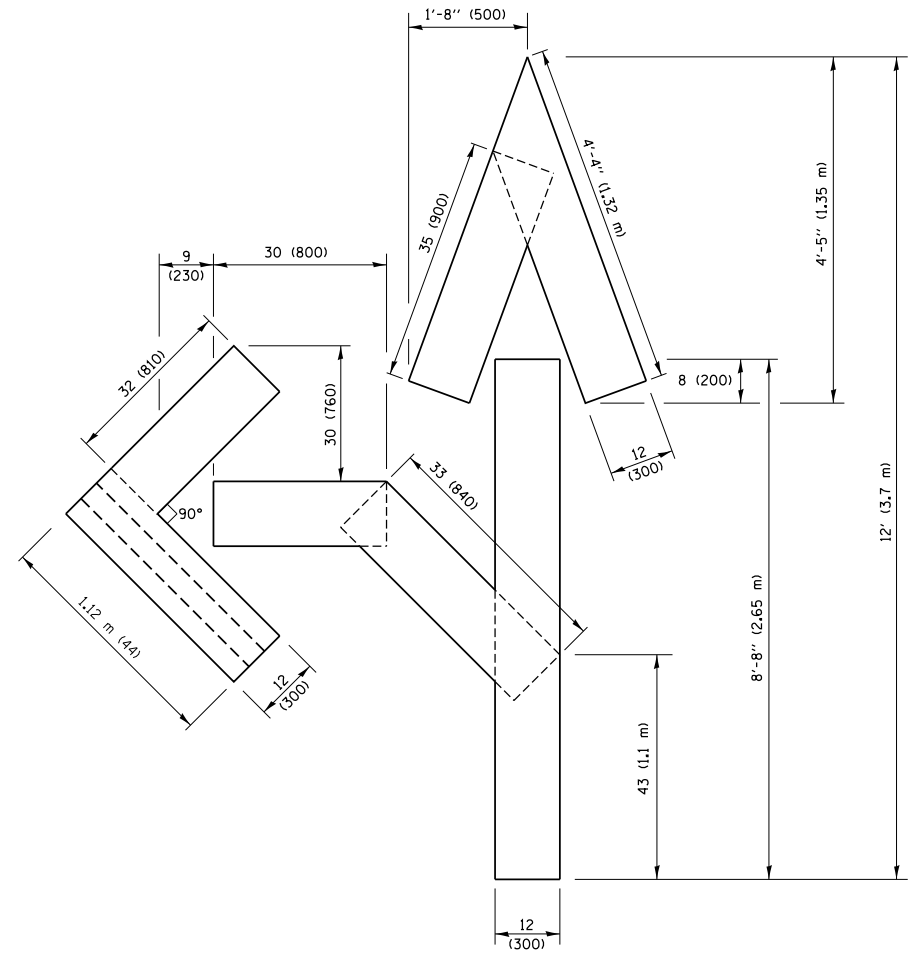
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Default		REVISED - A. HOUSEH 10-07-95	REVISED - A. SCHUETZE 07-01-13					351	(537 & 3277-Z)B-1	COOK	184	153
	PLOT SCALE = 50.0000' / in.	REVISED - A. HOUSEH 10-12-96	REVISED - A. SCHUETZE 09-15-16		<b>TC-14</b>			CONTRACT NO. 60K73				
	PLOT DATE = 9/15/2016	REVISED - T. RAMMACHER 01-06-00	REVISED -		ILLINOIS FED. AID PROJECT							
				SCALE: NONE	SHEET 1	OF 1	SHEETS	STA.	TO STA.			



**QUANTITY**  
 4 (100) LINE = 45.5 ft. (13.9 m)  
 15.2 sq. ft. (1.41 sq. m)

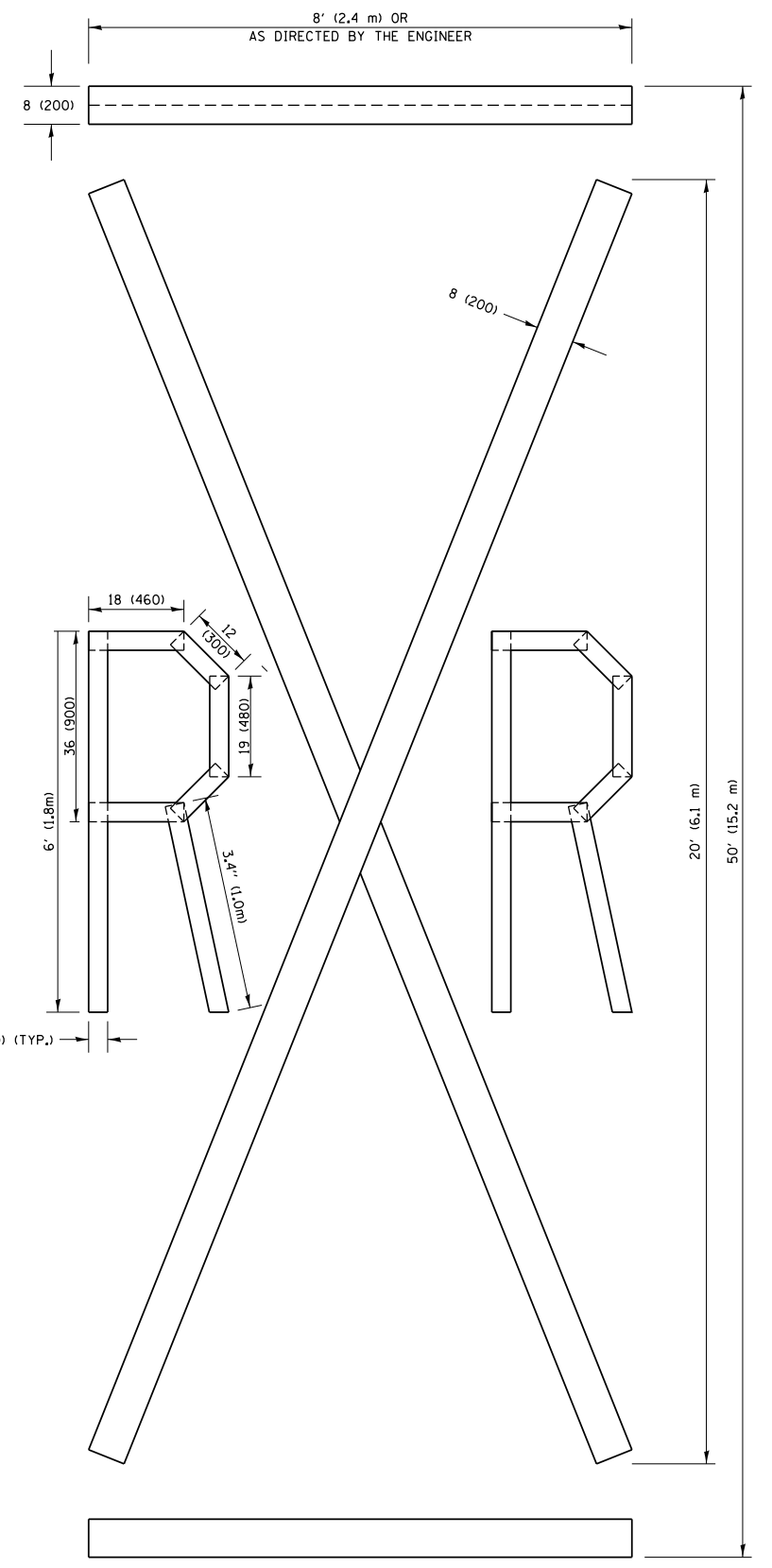


**QUANTITY**  
 4 (100) LINE = 64.1 ft. (19.5 m)  
 21.4 sq. ft. (1.99 sq. m)



**QUANTITY**  
 4 (100) LINE = 82.5 ft. (25.1 m)  
 27.5 sq. ft. (2.53 sq. m)

**NOTE:**  
 ALL QUANTITIES OF PLACEMENT ARE REPRESENTED IN LINEAR FEET OF 4" LINES TO MATCH THE 4" TEMPORARY TAPE PAY ITEM AND REPRESENTS THE TOTAL QUANTITY OF 4" TAPE REQUIRED.



**QUANTITY**  
 4 (100) LINE = 225.9 ft. (68.9 m)  
 75.3 sq. ft. (6.99 sq. m)

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = footemj	DESIGNED -	REVISED - T. RAMMACHER 03-02-98
pw:\l\084EBIDINTEG\illinois.gov\PWIDOT\Documents\IDOT Offices\District 1\Projects\Dist 1\084EBIDINTEG\CADD\CAD\Sheets\to16.dgn		CHECKED -	REVISED - E. GOMEZ 08-28-00
		DATE - 09-18-94	REVISED - E. GOMEZ 08-28-00
			REVISED - A. SCHUETZE 09-15-16

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**SHORT TERM PAVEMENT MARKING LETTERS AND SYMBOLS**

SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.
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F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	154
<b>TC-16</b>		<b>CONTRACT NO. 607K73</b>		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

**ROUTE MARKERS**

FOR U.S. ROUTES  
M1-40-2424

FOR ILLINOIS ROUTES  
M1-50-2424

R,R, UNMARKED ROUTES  
SPECIAL 24" x 18" VARIABLE  
4" BLACK LETTERS ON WHITE  
REFLECTIVE BACKGROUND

**ARROWS SIGNS**

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

**CARDINAL DIRECTION & DETOUR SIGNS**

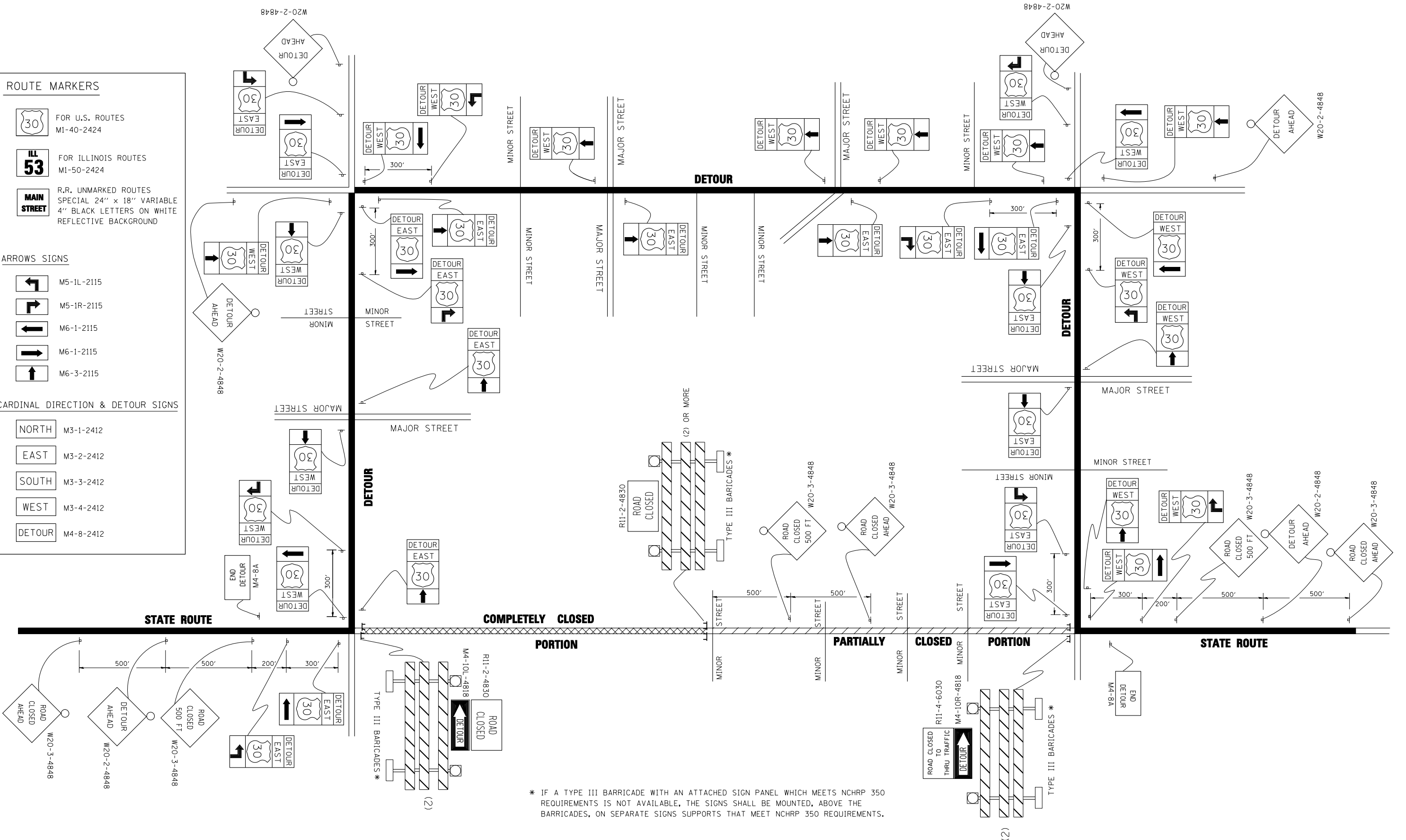
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



\* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = drivakosgn	DESIGNED -	REVISED - 10-18-02
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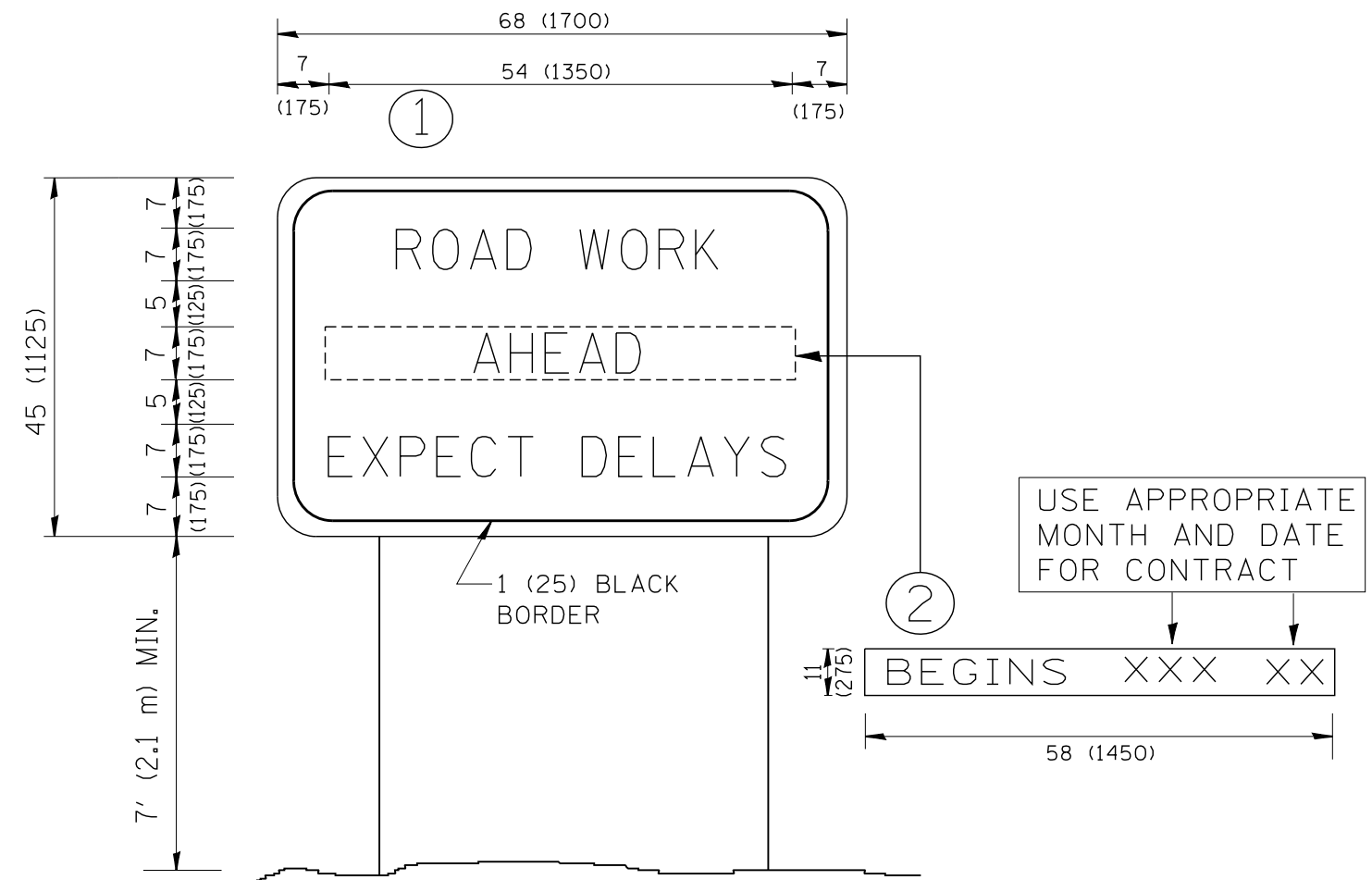
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**DETOUR SIGNING  
FOR CLOSING STATE HIGHWAYS**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	155
<b>TC-21</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				





**NOTES:**

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

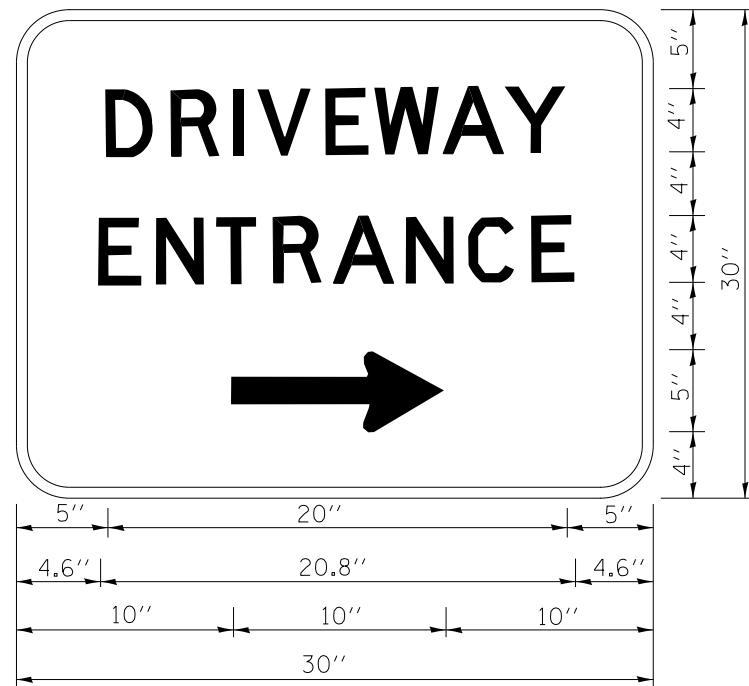
FILE NAME = W:\diststd\22x34\tc22.dgn	USER NAME = gegl@nbt	DESIGNED -	REVISED - R. MIRS 09-15-97
		DRAWN -	REVISED - R. MIRS 12-11-97
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - T. RAMMACHER 02-02-99
	PLOT DATE = 1/4/2008	DATE -	REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD  
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE. 351	SECTION (537 & 3277-Z)B-1	COUNTY COOK	TOTAL SHEETS 184	SHEET NO. 156
<b>TC-22</b>		CONTRACT NO. 60K73		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



3.0" RADIUS, 0.5" BORDER, WHITE ON GREEN; REFLECTORIZED  
 "DRIVEWAY" D; "ENTRANCE" D; STANDARD ARROW CUSTOM 12.0" x 5.0"

**NOTES:**

1. HALF OF THE SIGNS WILL REQUIRE A LEFT HAND FACING ARROW.
2. TWO SIGNS SHALL BE USED AT EACH COMMERCIAL ENTRANCE  
 PLACED BACK-TO-BACK; ONE WITH A RIGHT HAND ARROW (SHOWN)  
 SHALL BE PLACED ON THE NEAR RIGHT SIDE THE DRIVEWAY  
 AND ONE WITH A LEFT HAND ARROW SHALL BE PLACED ON THE  
 FAR LEFT SIDE OF THE DRIVEWAY.
3. SIGNS TO BE PAID FOR AS ITEM "TEMPORARY INFORMATION SIGNING".

FILE NAME =	USER NAME = gegl1enob1	DESIGNED -	REVISED - C. JUCIUS 02-15-07
ct:\pwork\pwork\gagl1enob1\d0108315\to26.dgn		DRAWN -	REVISED -
		CHECKED -	REVISED -
		DATE -	REVISED -
	PLOT SCALE = 50.000' / in.		
	PLOT DATE = 12/13/2012		

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**DRIVEWAY ENTRANCE SIGNING**

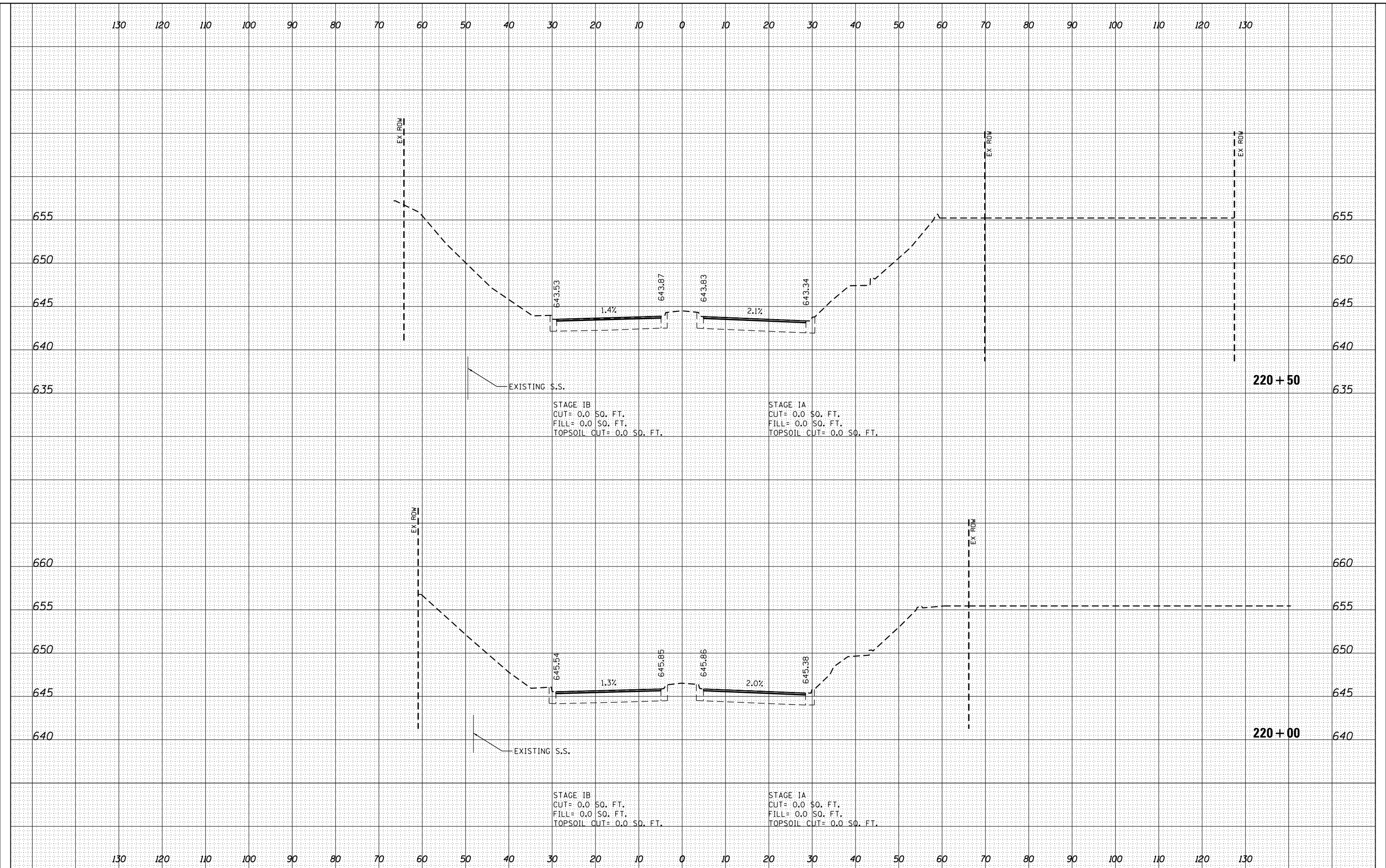
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	157
<b>TC-26</b>			CONTRACT NO. 60K73	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
NO.	TEMPLATE		
	AREAS CHECKED		
	AREAS CHECKED		

FILE NAME = D:\Engineering\Live\Projects\13003\DOT\DOT\3003e - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA. 220+00	TO	STA. 220+50
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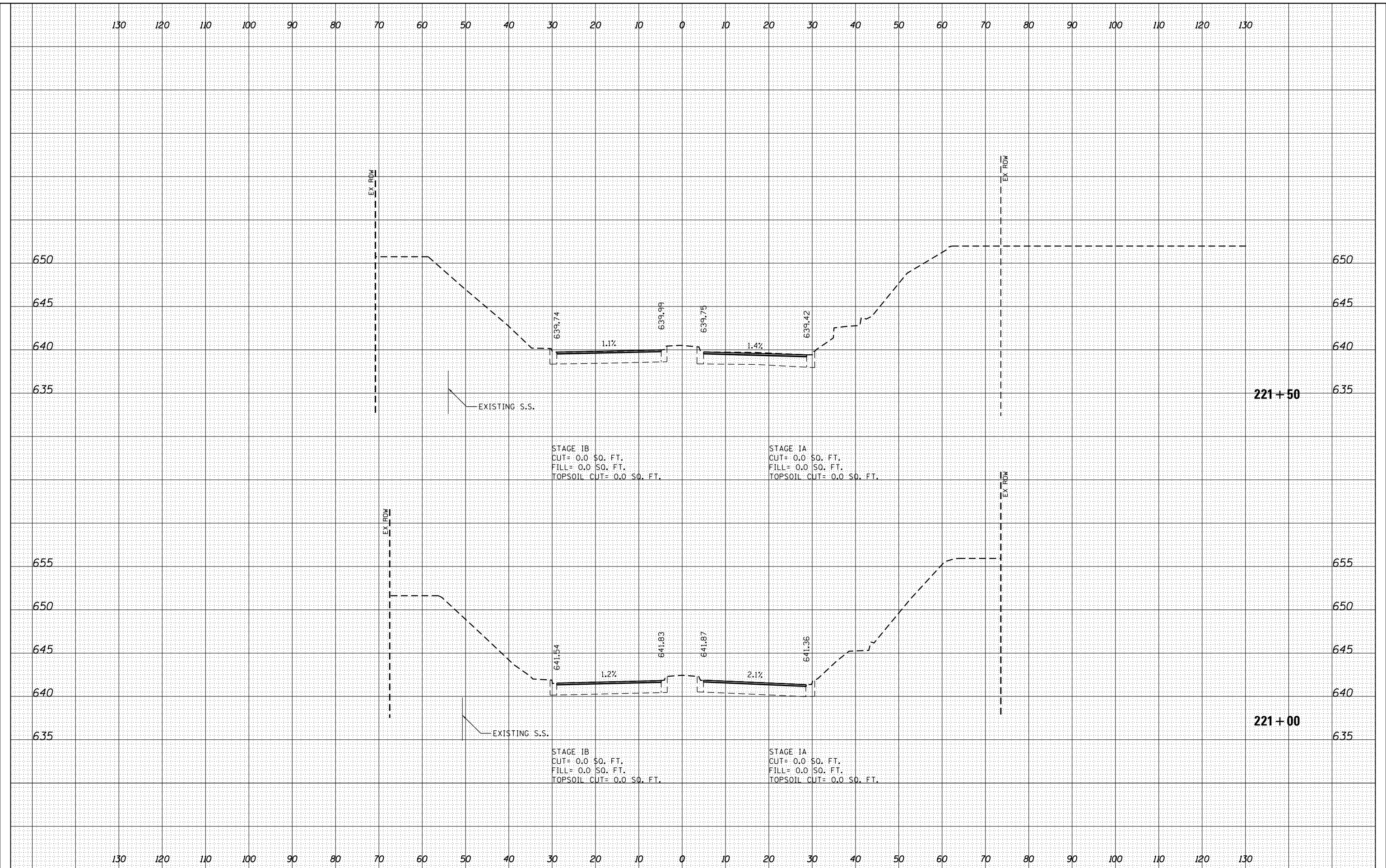
**CROSS SECTIONS  
US RT. 6 (159TH ST.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	158
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

ORIGINAL SURVEY	SURVEYED	DATE
NOTE BOOK	PLOTTED	
NO.	TEMPLATE	
	AREAS CHECKED	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT DUR\3003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 6/13/2017	CHECKED - TGM	REVISED -
	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS</b>	
<b>US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 221+00 TO STA. 221+50

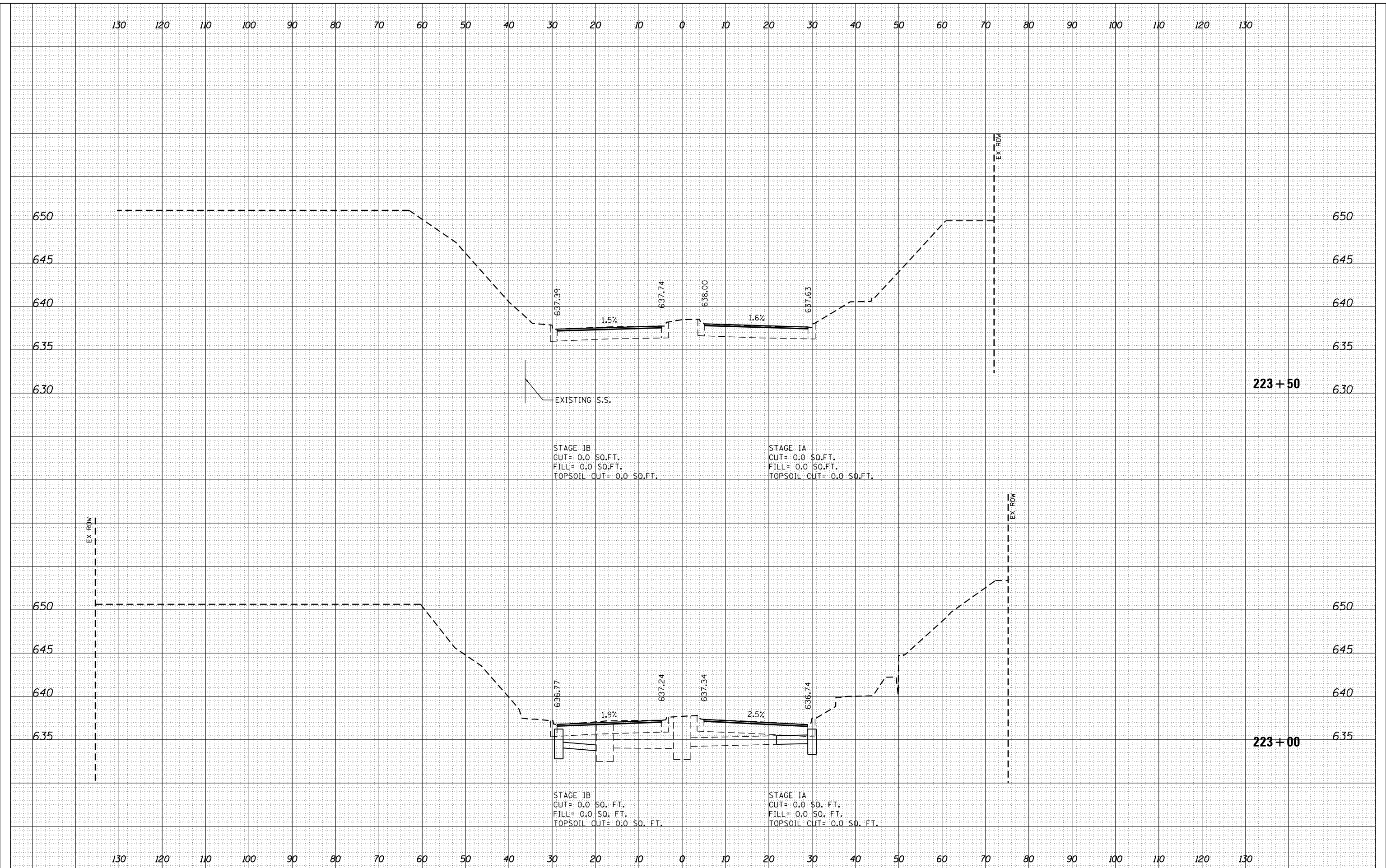
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	159
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED
	AREAS CHECKED

FILE NAME = D:\Engineering\Live\Projects\13003\DOT DUR\13003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\13003c-nt-XS US 6.dgn



EXISTING S.S.

STAGE IB  
CUT= 0.0 SQ.FT.  
FILL= 0.0 SQ.FT.  
TOPSOIL CUT= 0.0 SQ.FT.

STAGE IA  
CUT= 0.0 SQ.FT.  
FILL= 0.0 SQ.FT.  
TOPSOIL CUT= 0.0 SQ.FT.

STAGE IB  
CUT= 0.0 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.

STAGE IA  
CUT= 0.0 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.



USER NAME = johnn	DESIGNED - JN	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 6/13/2017	CHECKED - TGM	REVISED -
	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS</b>	
<b>US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS
STA. 223+00 TO STA. 223+50	

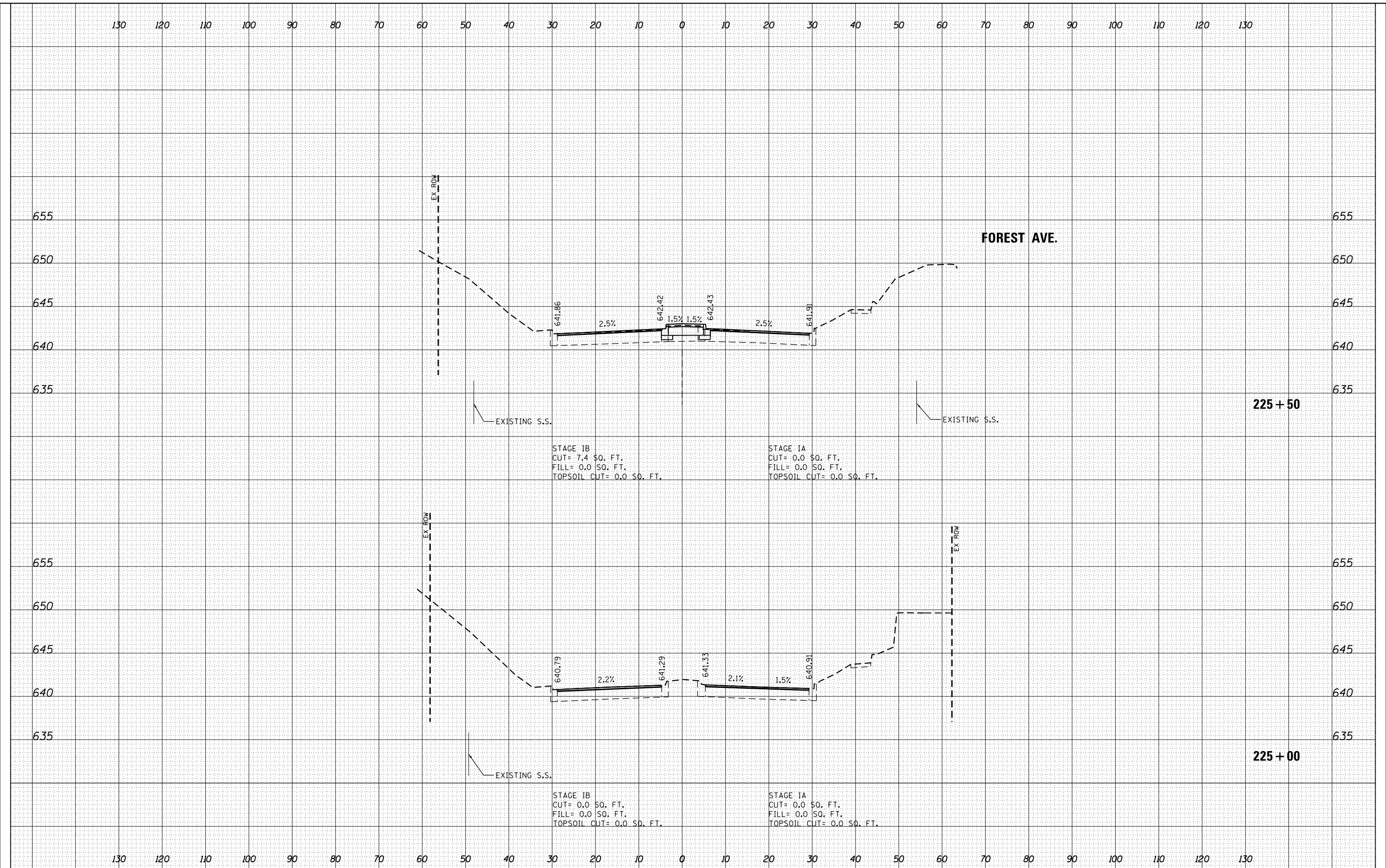
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	161
CONTRACT NO. 60K73			ILLINOIS FED. AID PROJECT	



DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT\DOT\3003e - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = john	DESIGNED -	REVISED -
	DRAWN -	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED -	REVISED -
PLOT DATE = 6/13/2017	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 225+00 TO STA. 225+50

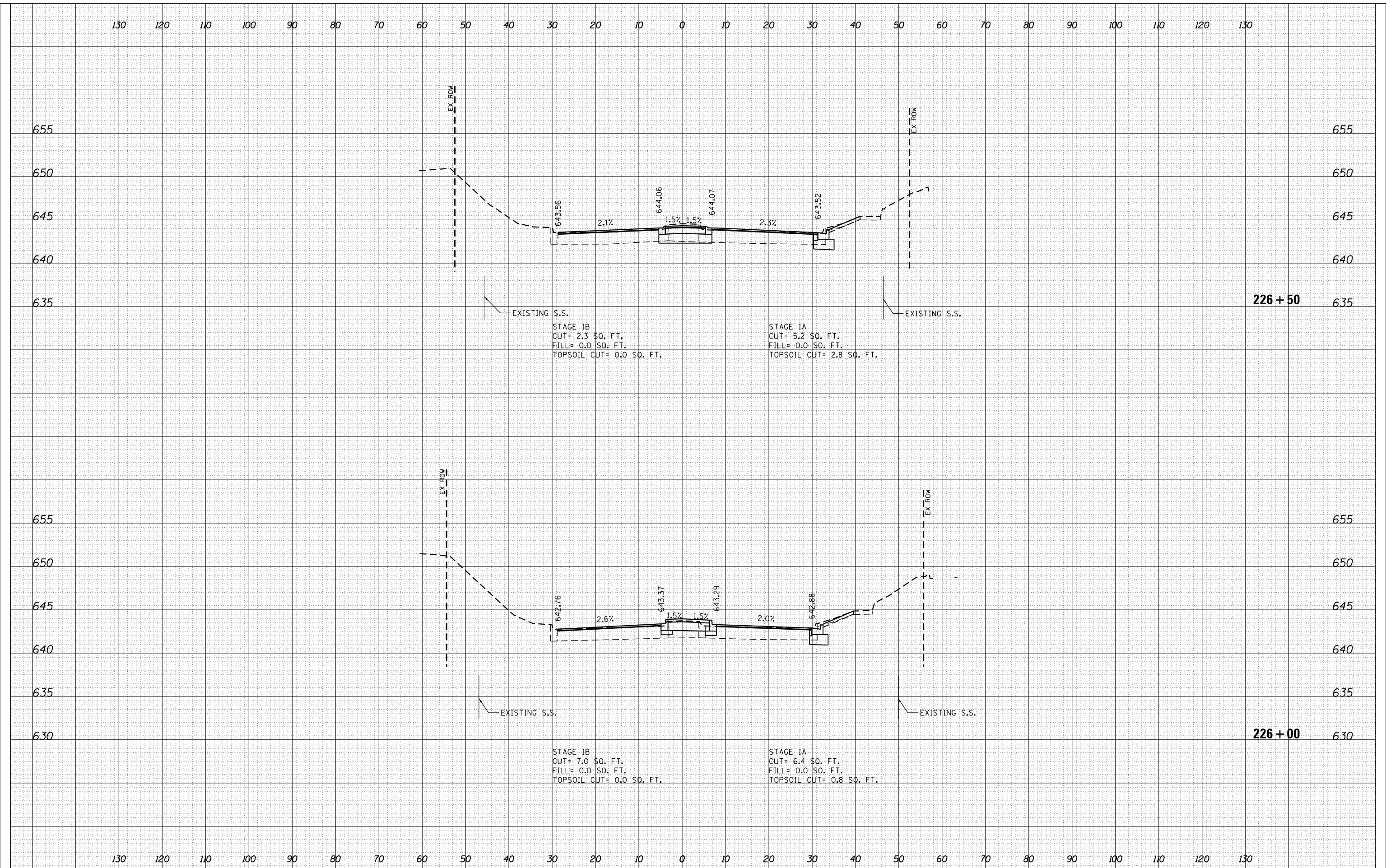
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	163
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

FILE NAME = D:\Engineering\Live\Projects\13003 IDOT DQR\13003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\IDOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED -	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN -	REVISED -
PLOT DATE = 6/13/2017	CHECKED -	REVISED -
	DATE -	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

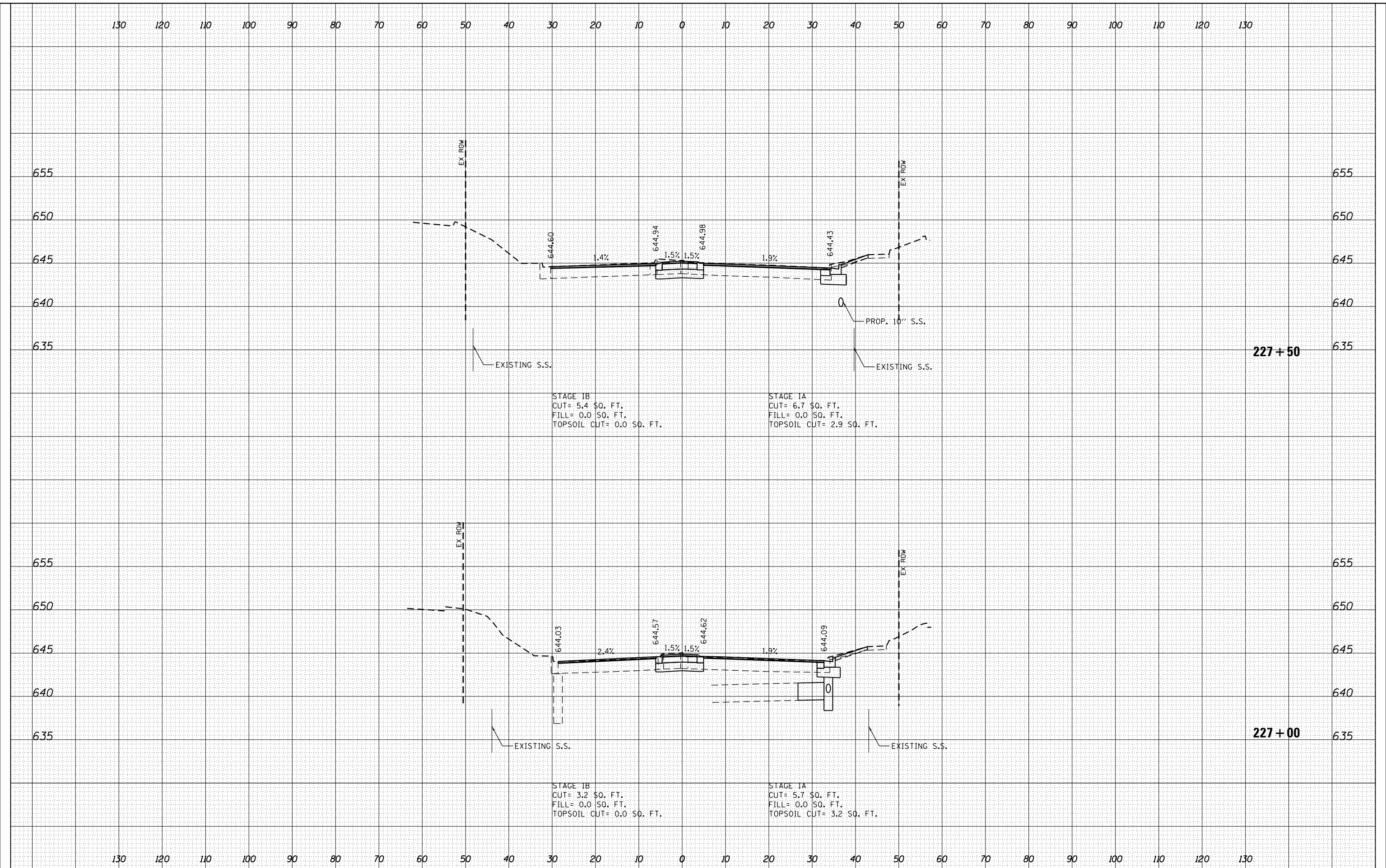
<b>CROSS SECTIONS US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 226+00 TO STA. 226+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	164
CONTRACT NO. 60K73			ILLINOIS FED. AID PROJECT	

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

FILE NAME = D:\Engineering\Live\Projects\13003\DOT\DOT\3003e - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA. 227+00	TO	STA. 227+50
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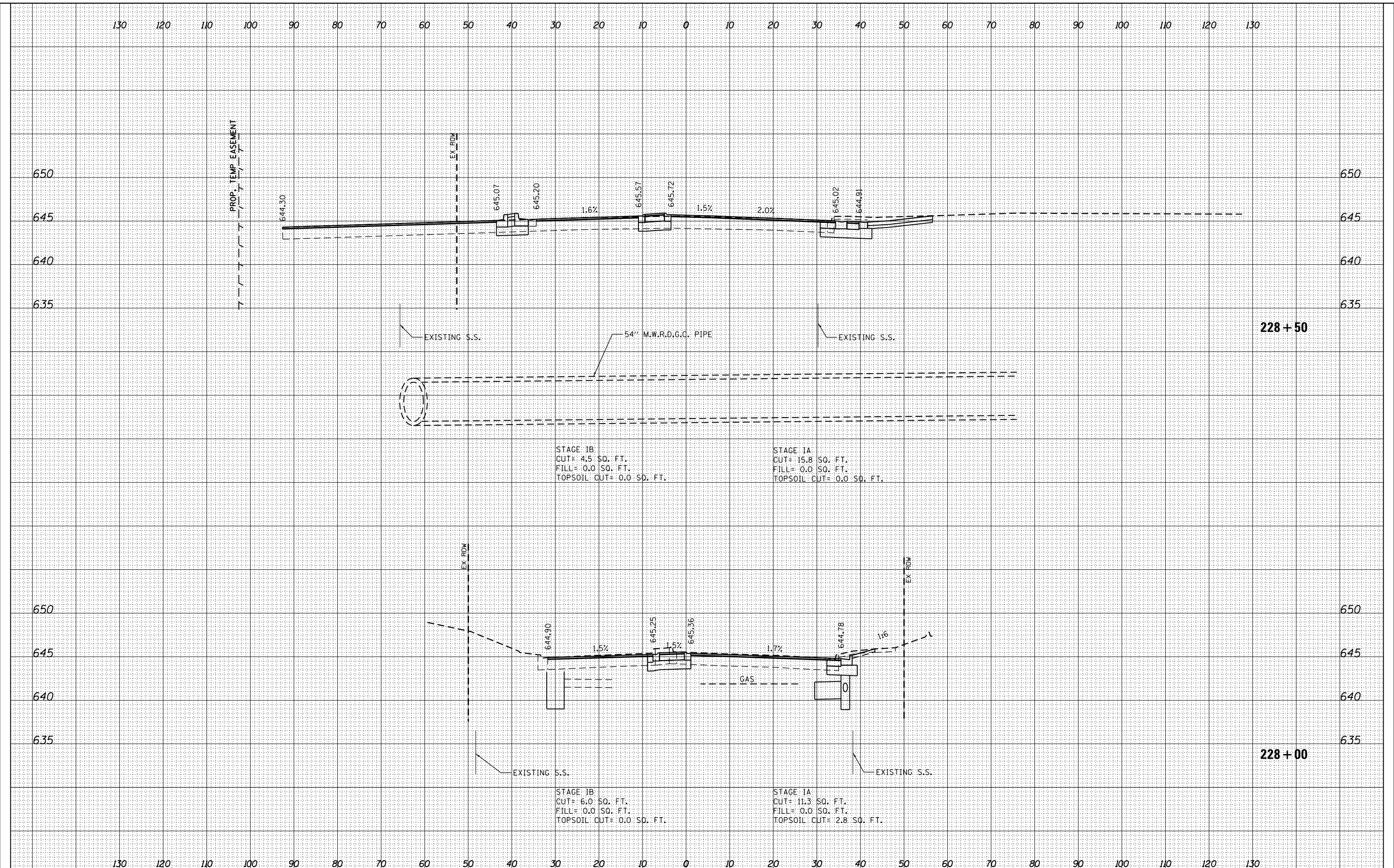
**CROSS SECTIONS  
US RTE. 6 (159TH ST.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	165
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

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USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 7/21/2017	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

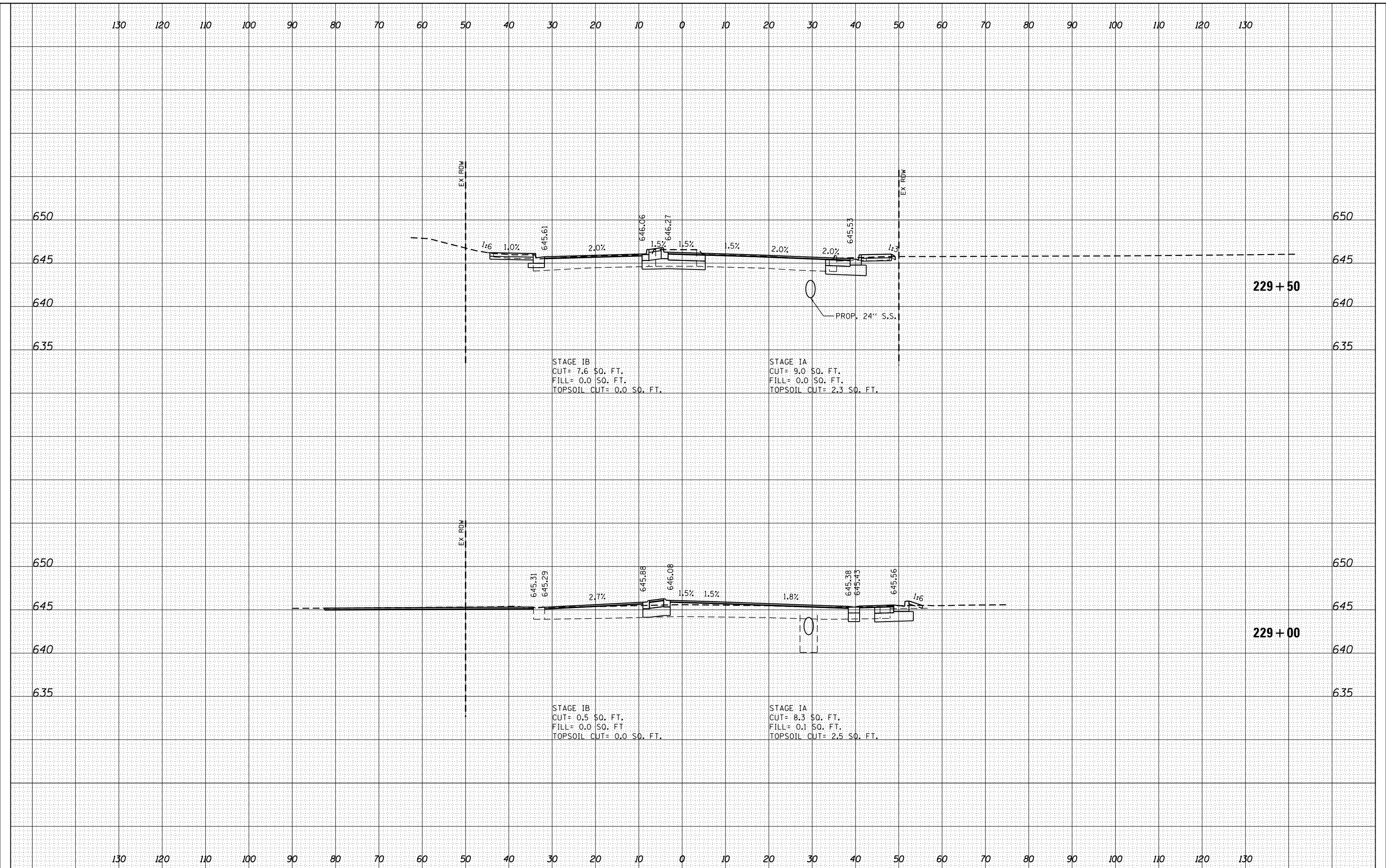
<b>CROSS SECTIONS</b>	
<b>US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 228+00 TO STA. 228+50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	1537 & 3277-Z/B-1	COOK	184	166
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

DATE	
BY	
ORIGINAL SURVEY	SURVEYED
NOTE BOOK	PLOTTED
NO.	TEMPLATE
	AREAS CHECKED

FILE NAME = D:\Engineering\Live\Projects\13003\DOT DUR\3003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

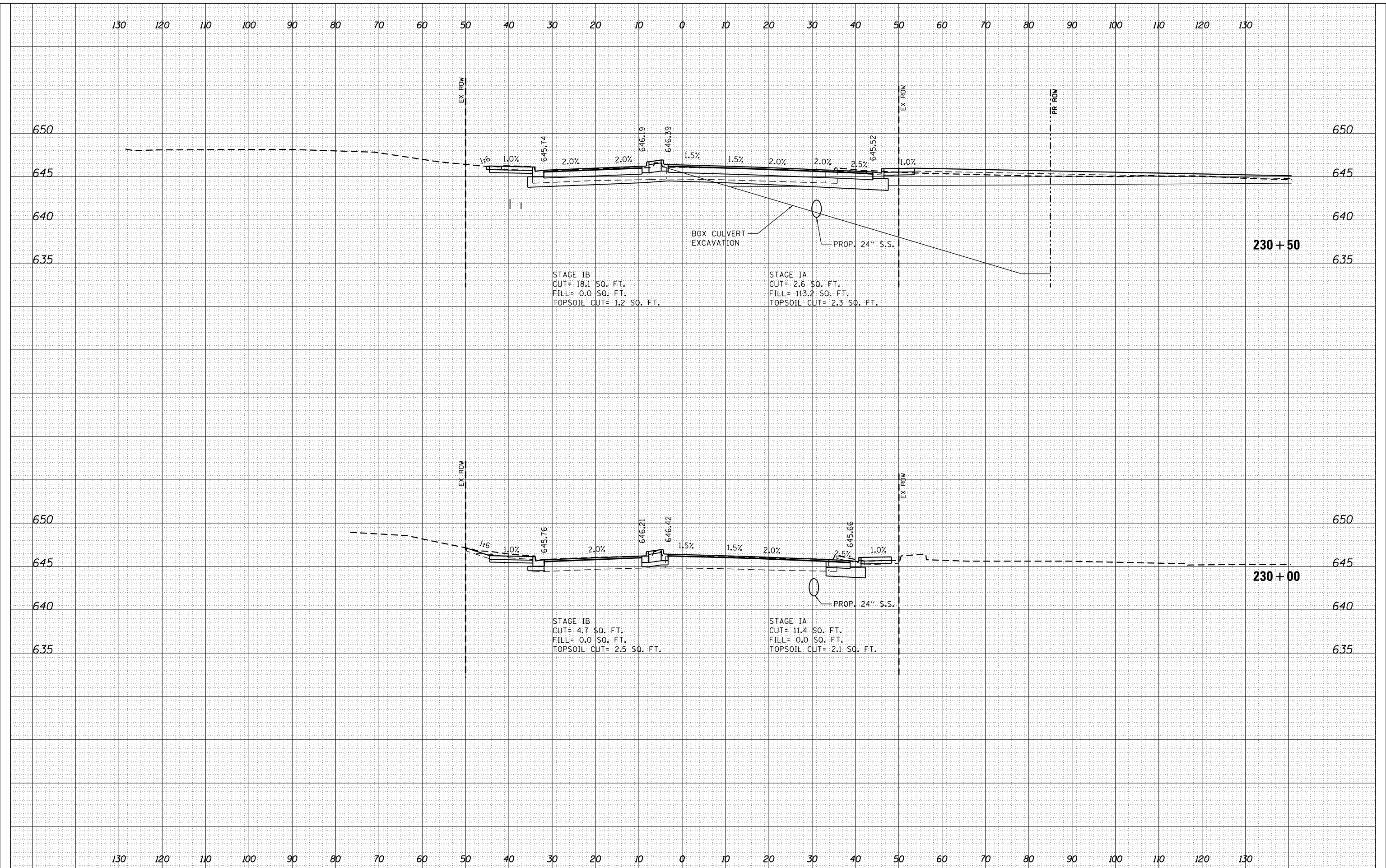
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<b>US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 228+80 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1	COOK	184	167
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
FINAL SURVEY	
NOTE BOOK	
NO.	

DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT\DOT\3-2013\Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-INT-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 6/13/2017	CHECKED - TGM	REVISED -
	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 229+50 TO STA. 230+50

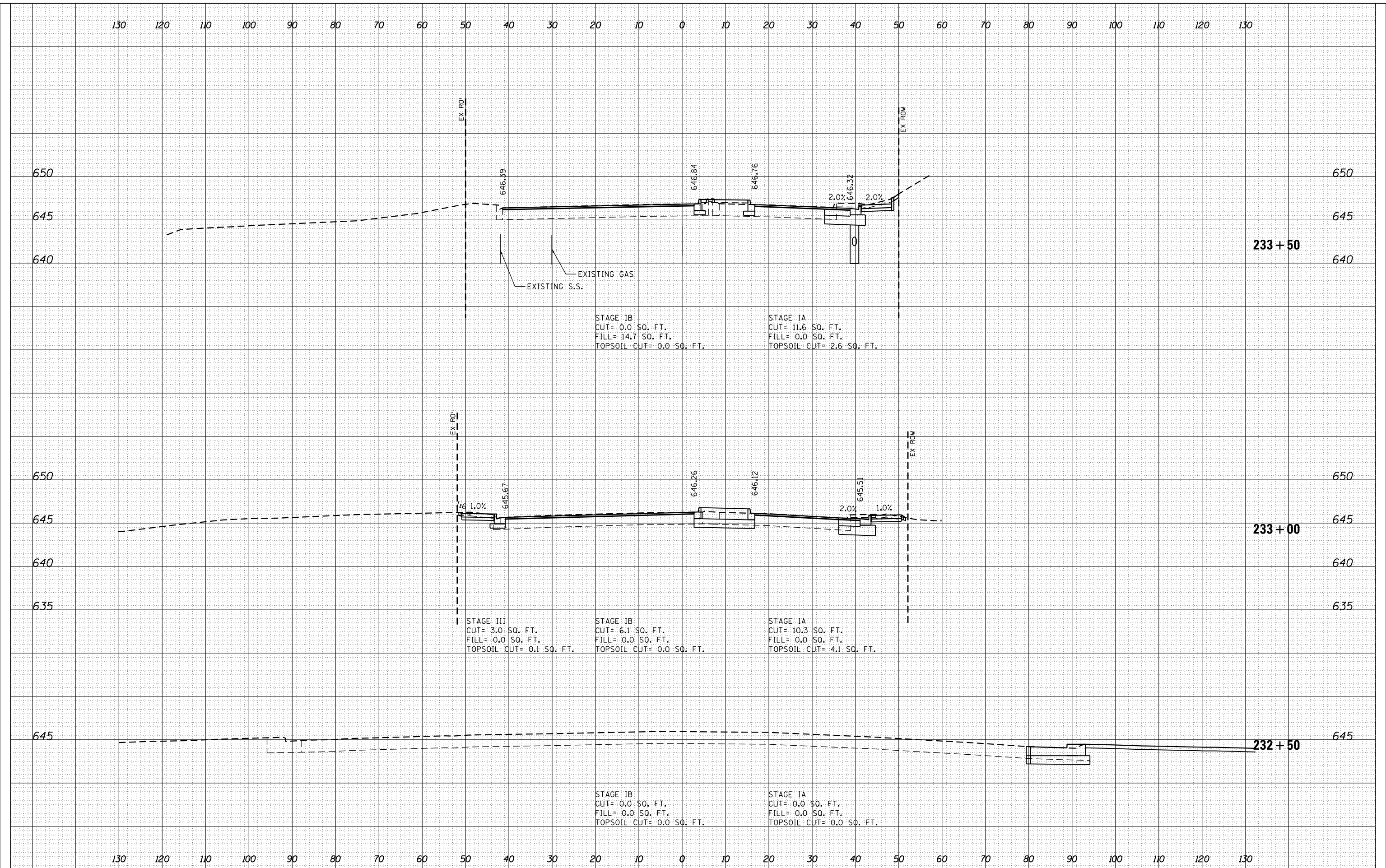
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	168
				CONTRACT NO. 60K73
ILLINOIS FED. AID PROJECT				



DATE	
BY	
FINAL SURVEY	
NO. SURVEY	
NOTE BOOK	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NO. SURVEY	
NOTE BOOK	
PLOTTED	
TEMPLATE	
AREAS CHECKED	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT\DOT\13003e - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
PLOT SCALE = 20.0000' / in.	CHECKED - TGM	REVISED -
PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

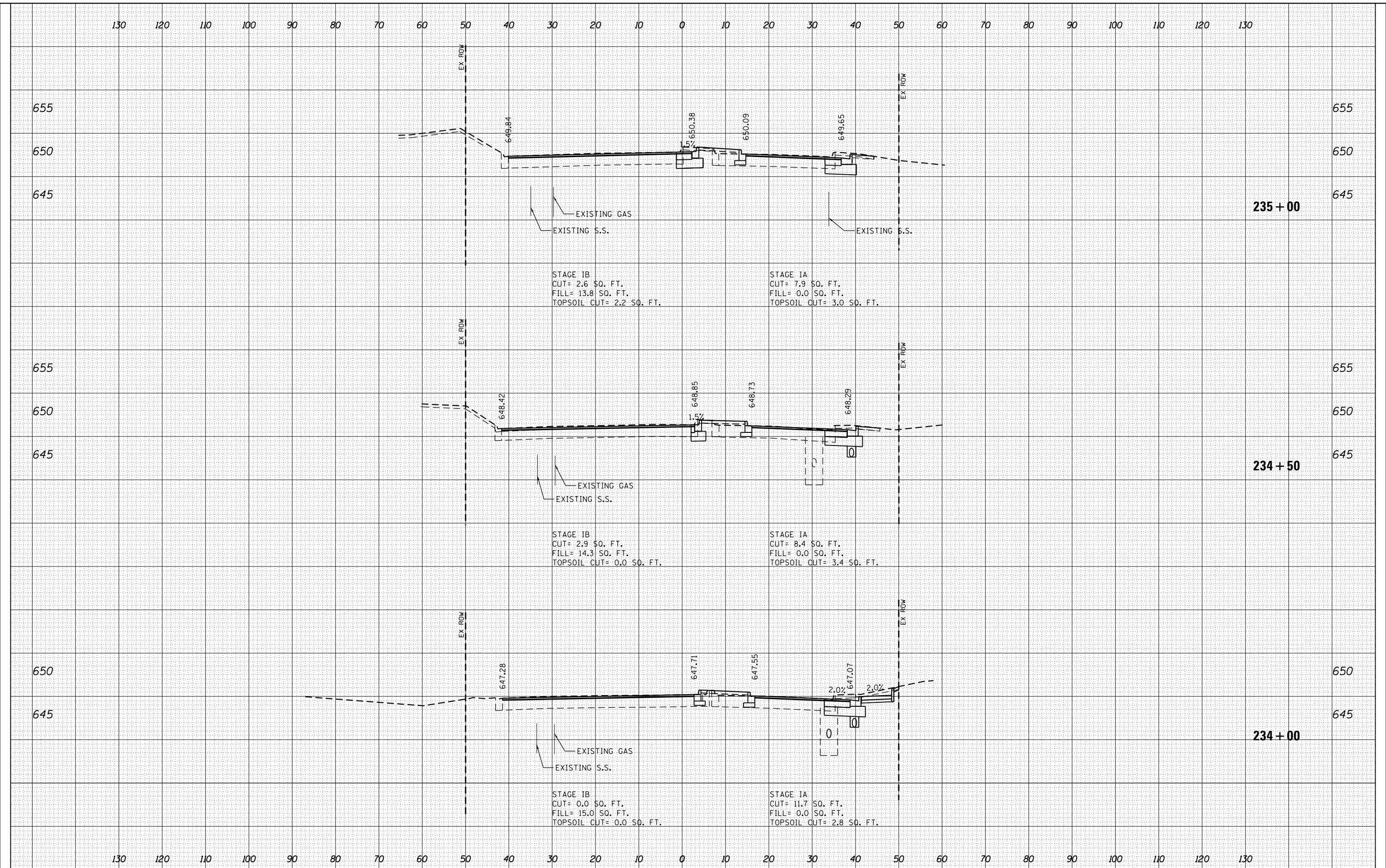
<b>CROSS SECTIONS US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. 232+50 TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	170
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY	
NOTE BOOK	
NO.	
AREAS CHECKED	
AREAS CHECKED	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT DUR\3003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\DOT\60K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
PLOT SCALE = 20.0000' / in.	DRAWN - JN	REVISED -
PLOT DATE = 6/13/2017	CHECKED - TGM	REVISED -
	DATE - 06/12/2017	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

SCALE:		SHEET	OF	SHEETS	STA. 234+00	TO	STA. 235+00
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**CROSS SECTIONS  
US RTE. 6 (159TH ST.)**

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	171
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

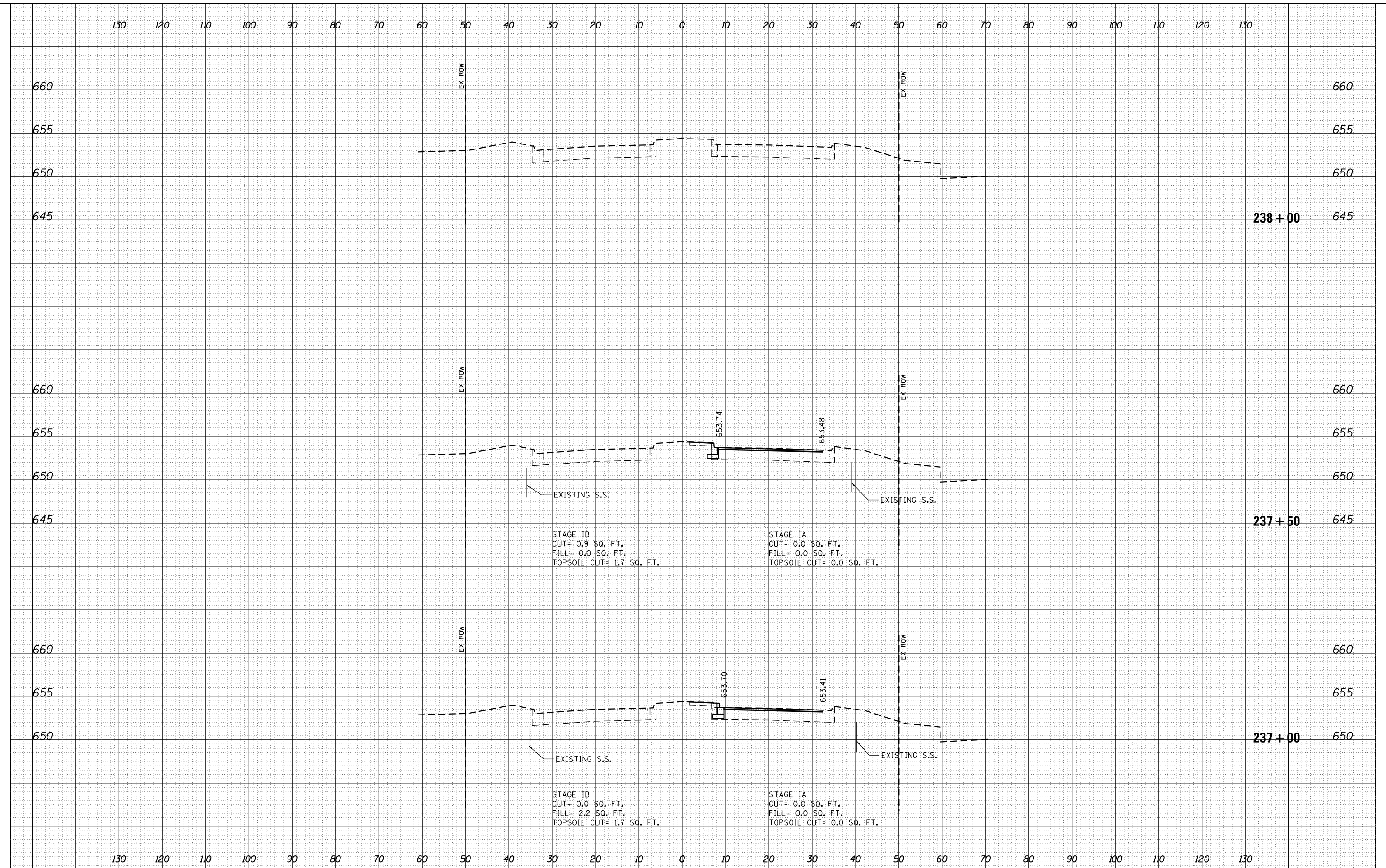




DATE	
BY	
FINAL SURVEY NO.	
SURVEYED AREAS CHECKED	
PLOTTED TEMPLATE	
NOTE BOOK AREAS CHECKED	

DATE	
BY	
ORIGINAL SURVEY NO.	
SURVEYED AREAS CHECKED	
PLOTTED TEMPLATE	
NOTE BOOK AREAS CHECKED	

FILE NAME = D:\Engineering\Live\Projects\13003\DOT DUR\3003c - MO 3 Contract No. 60K73\CADD\CADD Sheets\Civil\160K73-ent-XS US 6.dgn



USER NAME = johnn	DESIGNED - JN	REVISED -
	DRAWN - JN	REVISED -
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PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISED -

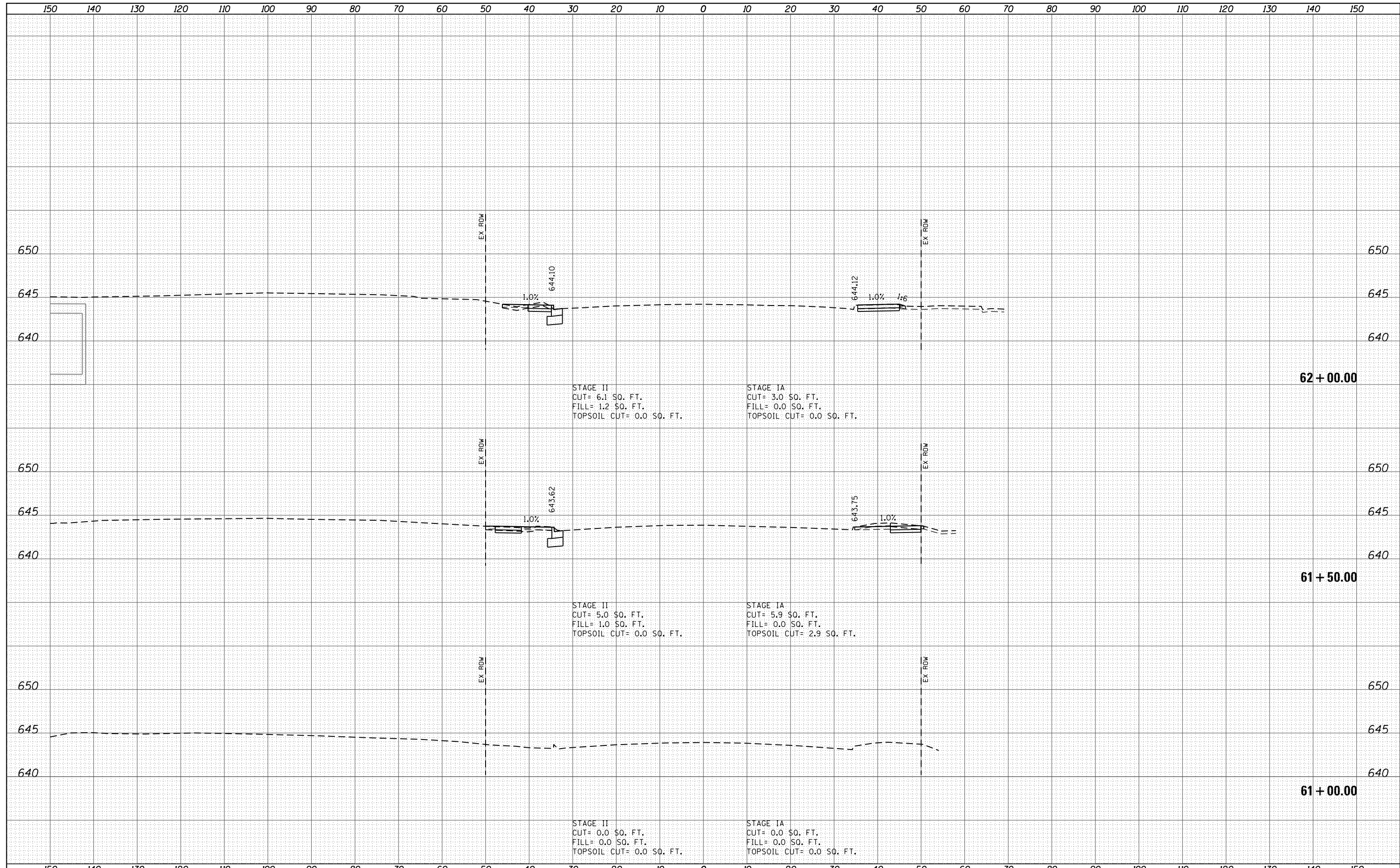
**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS US RTE. 6 (159TH ST.)</b>	
SCALE:	SHEET OF SHEETS STA. TO STA. 237+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-Z)B-1	COOK	184	173
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

DATE	
BY	
FINAL SURVEY	
SURVEYED	
NOTE BOOK	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
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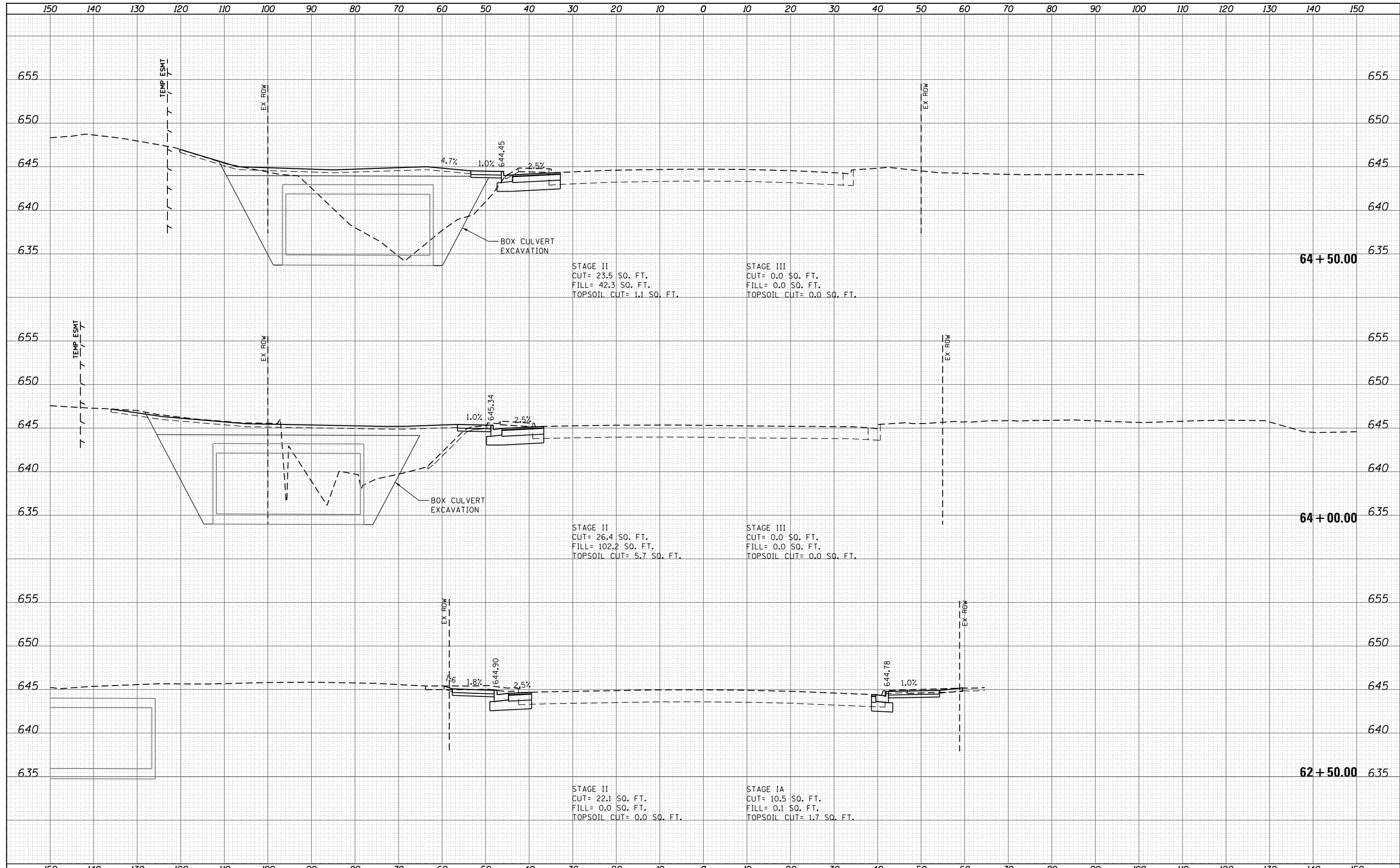
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BY	
ORIGINAL SURVEY	
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NOTE BOOK	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



FILE NAME =	USER NAME = johnn	DESIGNED - PP	REVISED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b> <b>IL RTE. 50 (CICERO AVE.)</b>			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\Engineering\LiveProjects\13003 IDOT DUR\13003c - WD 3 Contract No. 60K73\CADD\CADD Sheets\DRAWN\0160K73-Sh\Cicero.XS.dgn		CHECKED - TGM	REVISED -		351	(537 & 3277-ZIB-1)	COOK	184	174			
XS.SHEET_temporary_model_name.1		DATE - 06/12/2017	REVISED -		CONTRACT NO. 60K73							
					SCALE:	SHEET	OF	SHEETS	STA. 61+00.00 TO STA. 62+00.00	ILLINOIS FED. AID PROJECT		

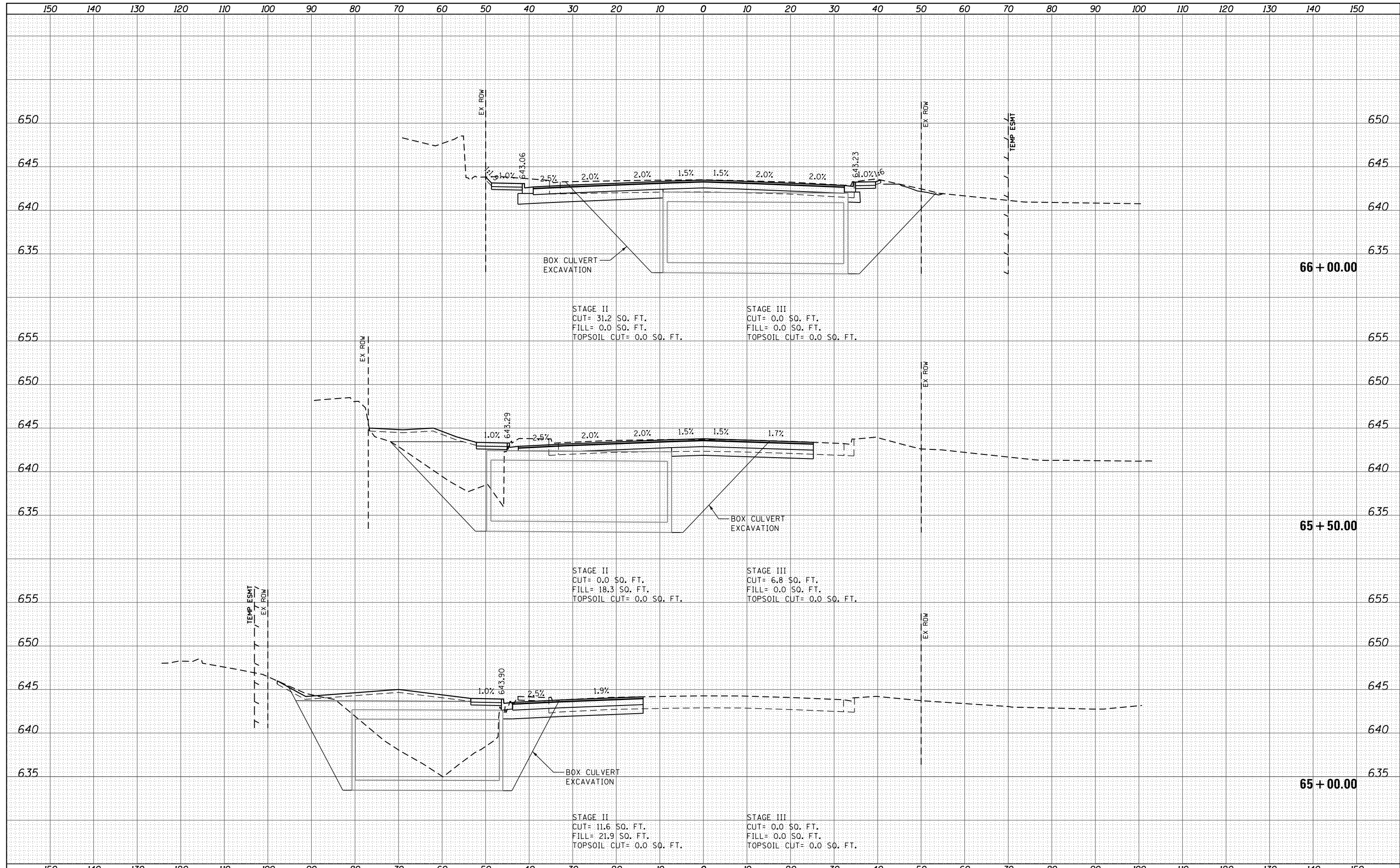
DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
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DATE	
BY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS CHECKED	
NO.	



DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
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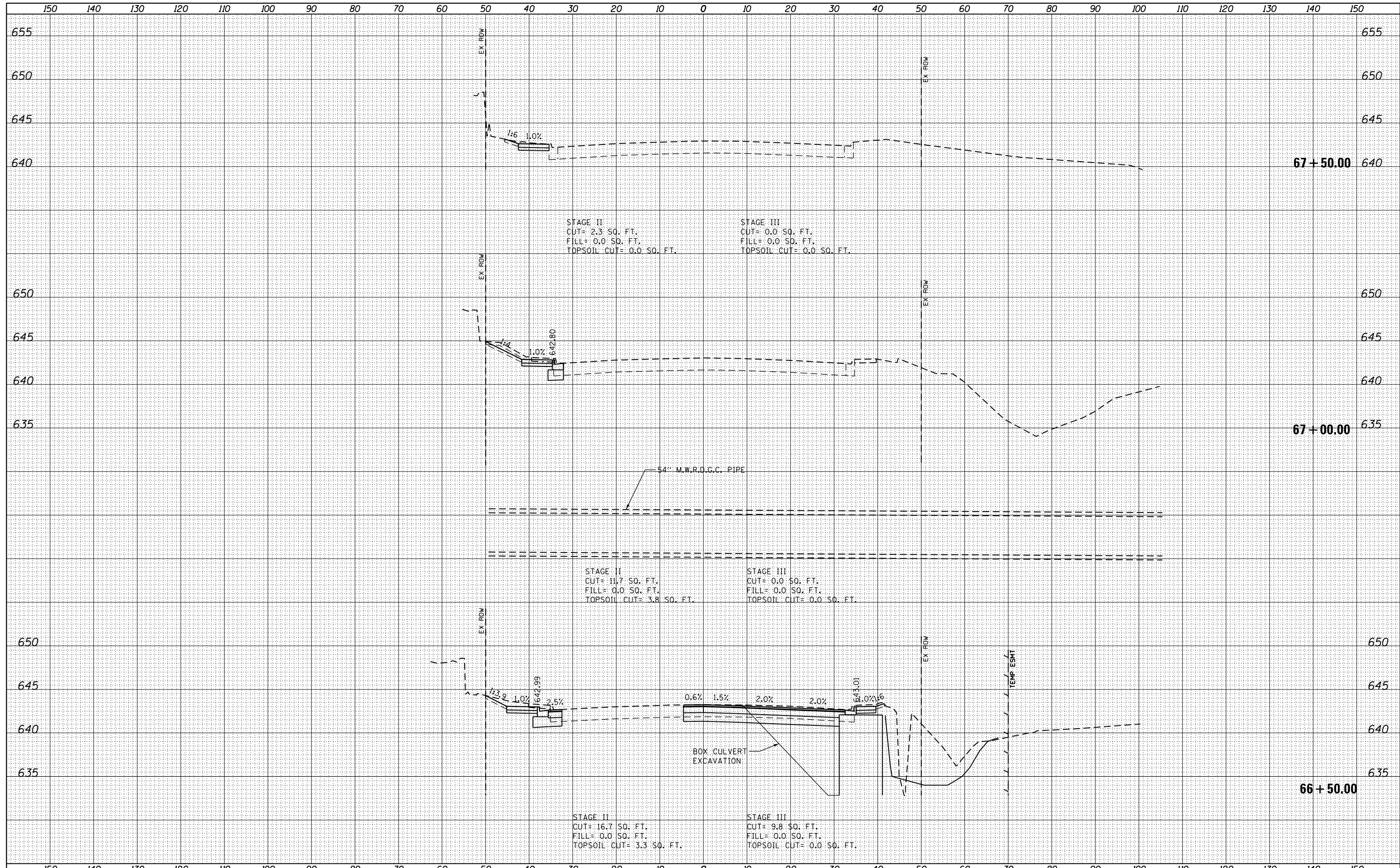
DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
AREAS	
CHECKED	
NO.	



FILE NAME =	USER NAME = johnn	DESIGNED - PP	REVISIED -	<b>STATE OF ILLINOIS</b> <b>DEPARTMENT OF TRANSPORTATION</b>	<b>CROSS SECTIONS</b> <b>IL RTE. 50 (CICERO AVE.)</b>	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
G:\Engineering\LiveProjects\13003 IDOT DUR\13003c - WD 3 Contract No. 60K73\CADD\CADD Sheets\DRAWN\160K73-Sht-01-XS.dgn	DRAWN - ON	REVISIED -	351			(537 & 3277-ZIB-1)	COOK	184	176	
PLOT SCALE = 20.000' / in.	CHECKED - TGM	REVISIED -	CONTRACT NO. 60K73							
PLOT DATE = 6/13/2017	DATE - 06/12/2017	REVISIED -	ILLINOIS FED. AID PROJECT							

DATE	
BY	
FINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	

DATE	
BY	
ORIGINAL SURVEY	
SURVEYED	
PLOTTED	
TEMPLATE	
NOTE BOOK	
AREAS CHECKED	
NO.	



STAGE II  
CUT= 2.3 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.

STAGE III  
CUT= 0.0 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.

STAGE II  
CUT= 11.7 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 3.8 SQ. FT.

STAGE III  
CUT= 0.0 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.

STAGE II  
CUT= 16.7 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 3.3 SQ. FT.

STAGE III  
CUT= 9.8 SQ. FT.  
FILL= 0.0 SQ. FT.  
TOPSOIL CUT= 0.0 SQ. FT.

FILE NAME =	USER NAME = johnn	DESIGNED - PP	REVISIED -	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
0:\Engineering\LiveProjects\13003 IDOT DUR\13003c - WD 3 Contract No. 60K73\CADD\CADD Sheets\DRAWN\160K73-Sht-01\ero.XS.dgn		DRAWN D160K73-Sht-01\ero.XS.dgn	REVISIED -	351	1537 & 3277-Z18-1	COOK	184	177
	PLOT SCALE = 20.000' / in.	CHECKED - TGM	REVISIED -	CONTRACT NO. 60K73				
XS.SHEET_temporary_model_name_4	PLOT DATE = 7/21/2017	DATE - 06/12/2017	REVISIED -	ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
IL RTE. 50 (CICERO AVE.)

SCALE: SHEET OF SHEETS STA. 66+50.00 TO STA. 67+50.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

DATE	BY	SURVEYED	PLOTTED
		NOTE BOOK	TEMPLATE
		AREAS	CHECKED
		AREAS	CHECKED

DATE	BY	SURVEYED	PLOTTED
		NOTE BOOK	TEMPLATE
		AREAS	CHECKED
		AREAS	CHECKED



STAGE II  
 CUT= 0.0 SQ. FT.  
 FILL= 0.0 SQ. FT.  
 TOPSOIL CUT= 0.0 SQ. FT.

STAGE III  
 CUT= 0.0 SQ. FT.  
 FILL= 0.0 SQ. FT.  
 TOPSOIL CUT= 0.0 SQ. FT.

68 + 00.00

150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

FILE NAME =  
 G:\Engineering\LiveProjects\13003 IDOT DUR\13003c - WD 3 Contract No. 60K73\CADD\CADD Sheets\DRAWN\160K73-Sht-C1-Pro.XS.dgn  
 XS.SHEET\_temporary\_model\_name\_5

USER NAME = johnn  
 DESIGNED - PP  
 CHECKED - TGM  
 DATE - 06/12/2017

REVISIED -  
 REVISIED -  
 REVISIED -  
 REVISIED -

**STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION**

**CROSS SECTIONS  
 IL RTE. 50 (CICERO AVE.)**

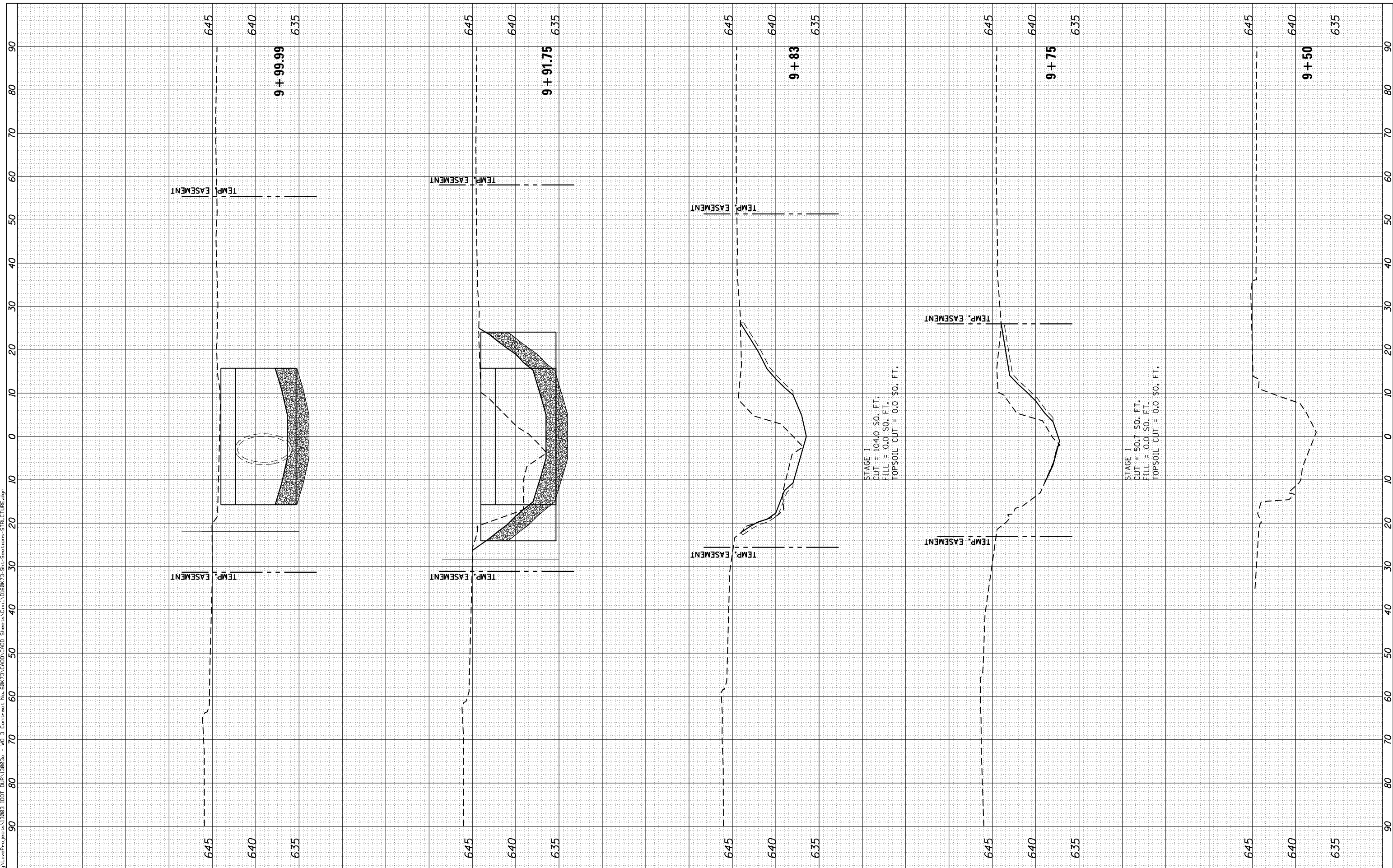
SCALE: SHEET OF SHEETS STA. 68+00.00 TO STA. 68+00.00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	(537 & 3277-ZIB-1)	COOK	184	178
CONTRACT NO. 60K73			ILLINOIS FED. AID PROJECT	

FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
NO.	AREAS CHECKED		

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STAGE I  
CUT = 104.0 SQ. FT.  
FILL = 0.0 SQ. FT.  
TOPSOIL CUT = 0.0 SQ. FT.

STAGE I  
CUT = 50.7 SQ. FT.  
FILL = 0.0 SQ. FT.  
TOPSOIL CUT = 0.0 SQ. FT.



USER NAME =	johnn
DESIGNED	TGM
DRAWN	CC
CHECKED	JMT
DATE	12-17-2014
PLOT SCALE =	20.000' / in.
PLOT DATE =	6/13/2017

REVISIONS	NO.	DESCRIPTION
REVISIONS	NO.	DESCRIPTION
REVISIONS	NO.	DESCRIPTION
REVISIONS	NO.	DESCRIPTION
REVISIONS	NO.	DESCRIPTION

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS  
TRIPLE CELL BOX CULVERT

SCALE: SHEET 1 OF 6 SHEETS STA. 9+50 TO STA. 9+99.99

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 (SB & SF) 1	COOK	184	179
CONTRACT NO. 60K73				

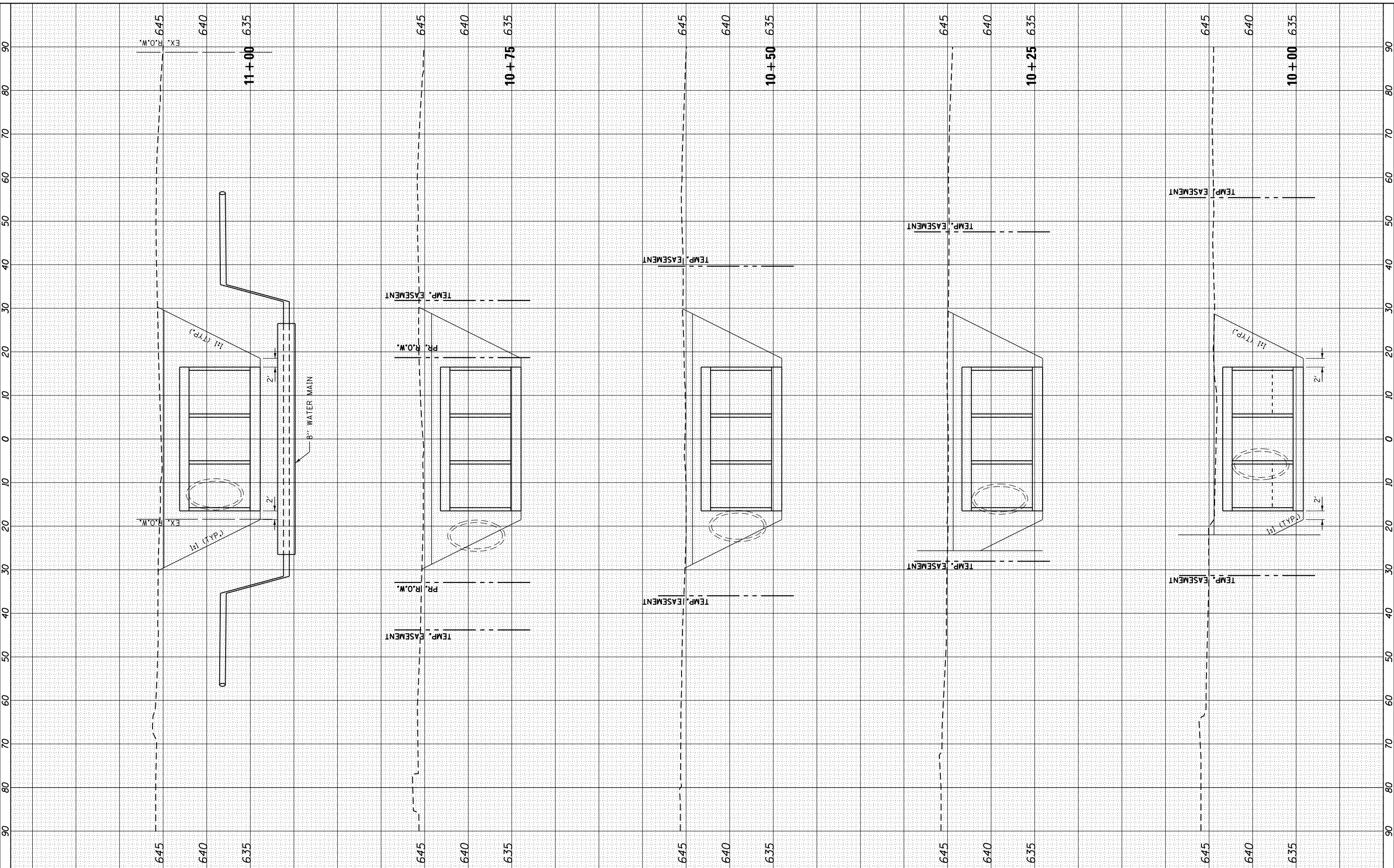
ILLINOIS FED. AID PROJECT



FINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
AREAS CHECKED	AREAS CHECKED		

ORIGINAL SURVEY	SURVEYED	BY	DATE
NOTE BOOK	PLOTTED		
AREAS CHECKED	TEMPLATE		
AREAS CHECKED	AREAS CHECKED		

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USER NAME = johnn	DESIGNED - TGM	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - CC	REVISED -
PLOT DATE = 6/13/2017	CHECKED - JMT	REVISED -
	DATE - 12-17-2014	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

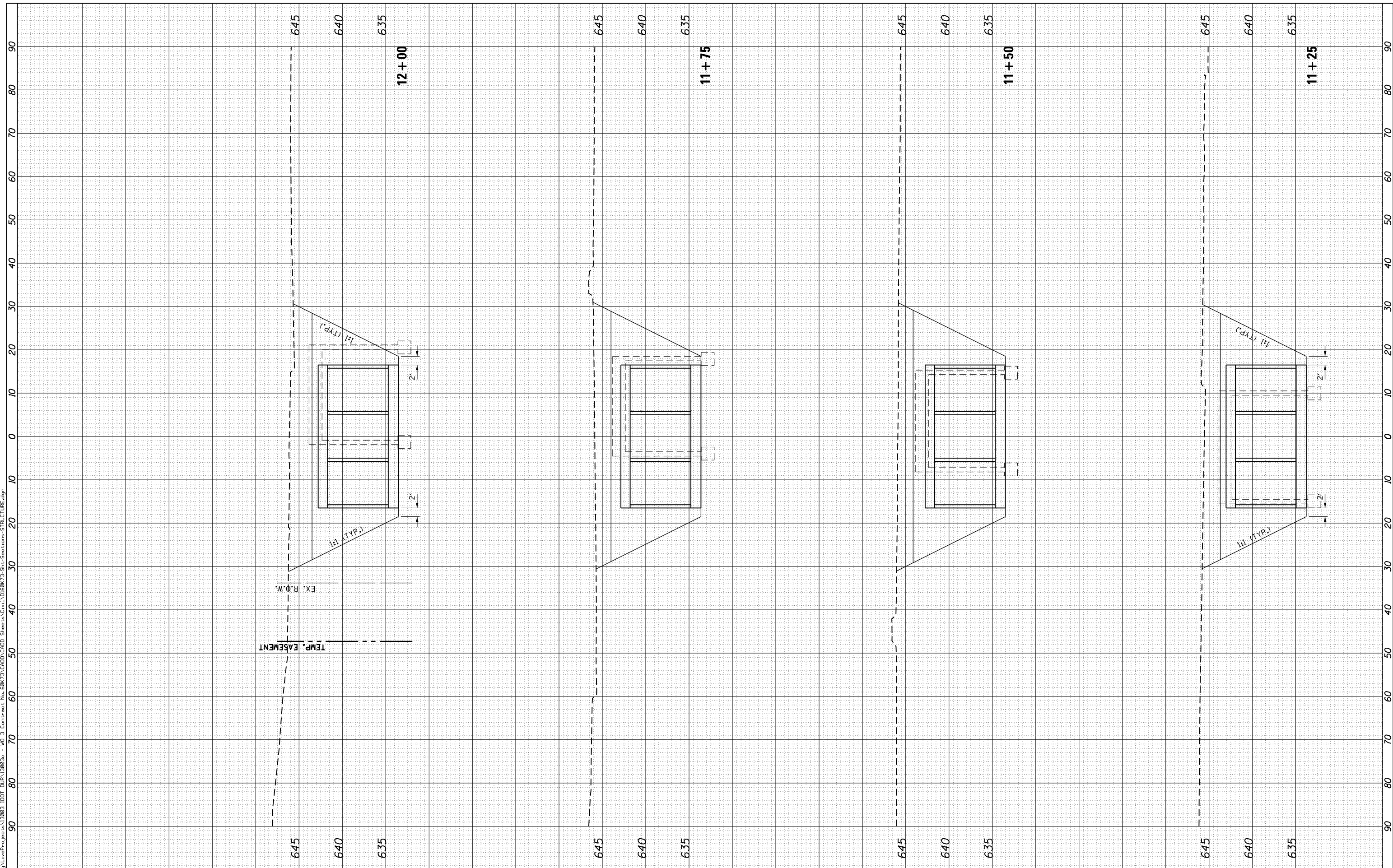
<b>CROSS SECTIONS TRIPLE CELL BOX CULVERT</b>		
SCALE:	SHEET 2 OF 6 SHEETS	STA. 10+00 TO STA. 11+00

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
351	537 (SB & SF) 1	COOK	184	180
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

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TEMP. EASEMENT  
EX. R.O.W.



USER NAME = johnn	DESIGNED - TGM	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - CC	REVISED -
PLOT DATE = 6/13/2017	CHECKED - JMT	REVISED -
	DATE - 12-17-2014	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS TRIPLE CELL BOX CULVERT</b>		
SCALE:	SHEET 3 OF 6 SHEETS	STA. 11+25 TO STA. 12+00

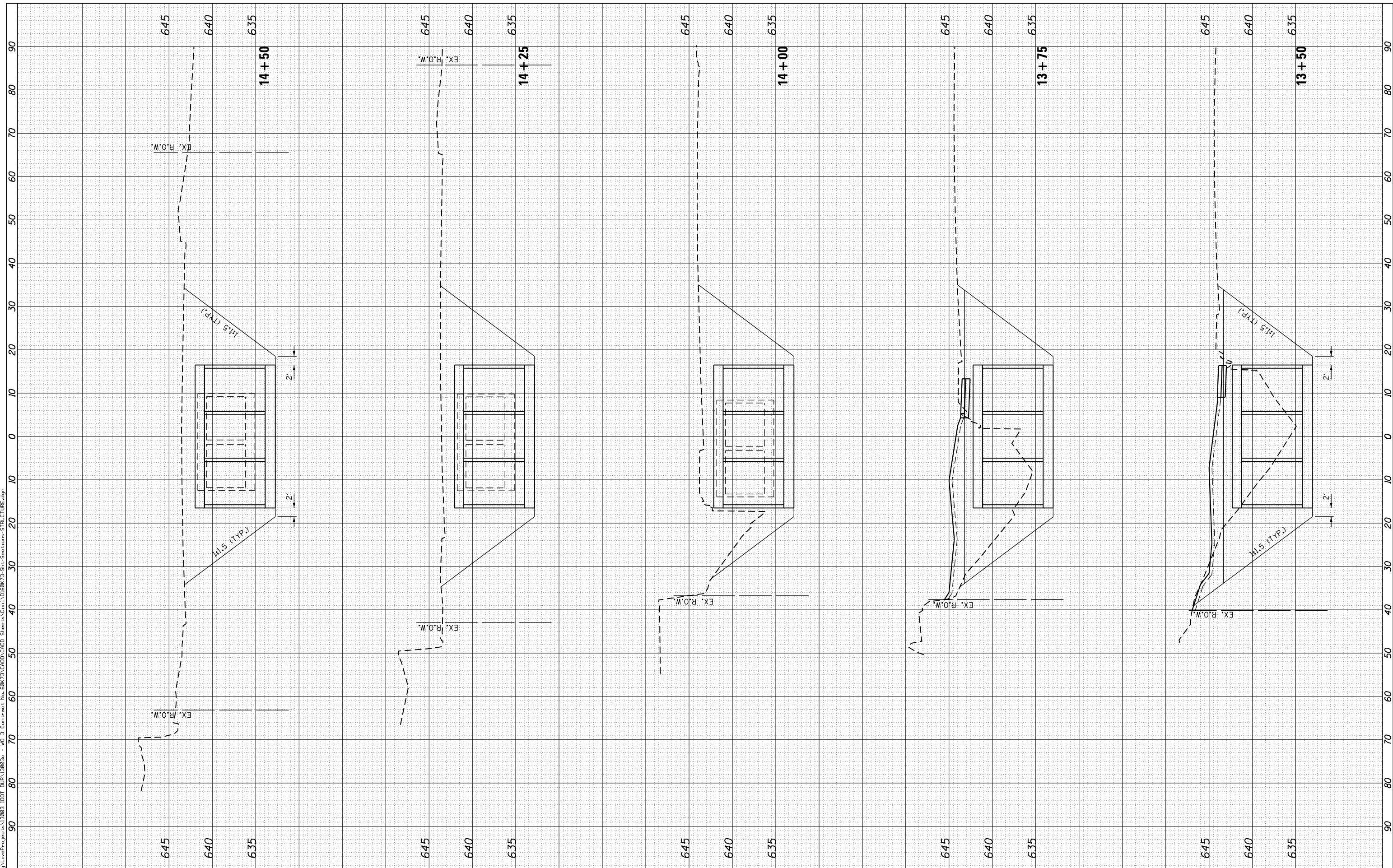
F.A.P. RTE. 351	SECTION 537 (SB & SF) 1	COUNTY COOK	TOTAL SHEETS 184	SHEET NO. 181
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				



FINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

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USER NAME = johnn	DESIGNED - TGM	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - CC	REVISED -
PLOT DATE = 6/13/2017	CHECKED - JMT	REVISED -
	DATE - 12-17-2014	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

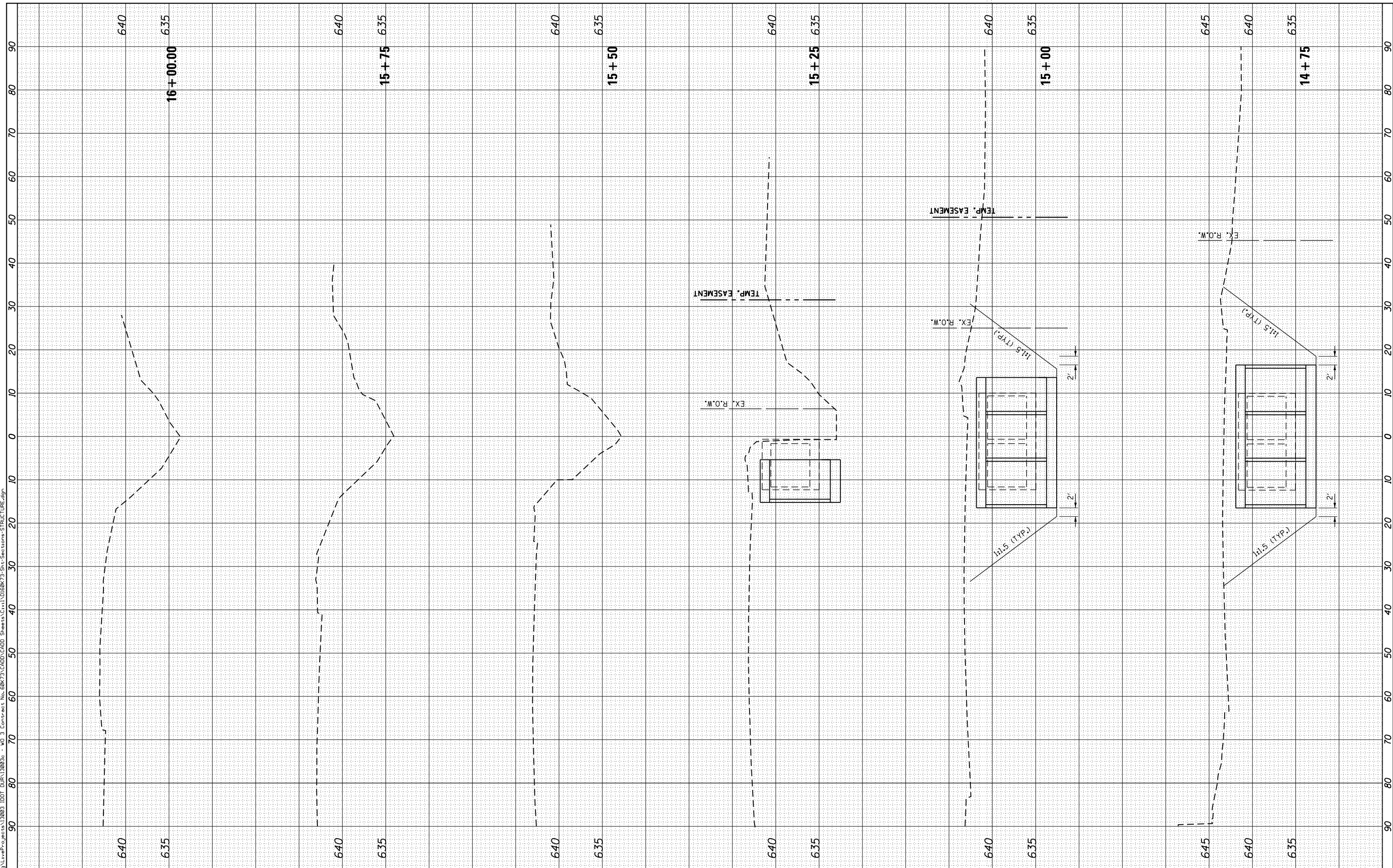
<b>CROSS SECTIONS TRIPLE CELL BOX CULVERT</b>		
SCALE:	SHEET 5 OF 6 SHEETS	STA. 13+50 TO STA. 14+50

F.A.P. RTE. 351	SECTION 537 (SB & SF) 1	COUNTY COOK	TOTAL SHEETS 184	SHEET NO. 183
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				

FINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

ORIGINAL SURVEY NO.	SURVEYED AREAS CHECKED	BY	DATE

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USER NAME = johnn	DESIGNED - TGM	REVISED -
PLOT SCALE = 20.000' / in.	DRAWN - CC	REVISED -
PLOT DATE = 6/13/2017	CHECKED - JMT	REVISED -
	DATE - 12-17-2014	REVISED -

**STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION**

<b>CROSS SECTIONS TRIPLE CELL BOX CULVERT</b>		
SCALE:	SHEET 6 OF 6 SHEETS	STA. 14+75 TO STA. 16+00

F.A.P. RTE. 351	SECTION 537 (SB & SF) 1	COUNTY COOK	TOTAL SHEETS 184	SHEET NO. 184
CONTRACT NO. 60K73				
ILLINOIS FED. AID PROJECT				